

A RELATIONSHIP BETWEEN TOPIC FAMILIARITY, GENDER DIFFERENCES,
VOCABULARY, AND ENGLISH READING COMPREHENSION OF STUDENTS AT
THE UNIVERSITY LEVEL IN THAILAND

A THESIS

BY

NATTHICHA CHANSRI

Presented in Partial Fulfillment of the Requirements for the

Master of Arts Degree in English

at Srinakharinwirot University

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AN ABSTRACT

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Natthicha Chansri. (2008). *A Relationship between Topic Familiarity, Gender Differences, Vocabulary, and English Reading Comprehension of Students at the University Level in Thailand*. Master thesis, M. A. (English). Bangkok: Graduate School, Srinakharinwirot University. Advisory Committee: Dr. Saiwaroon Chumpavan, Dr. Sirinan Srinaowaratt

This study was designed to investigate the relationships between topic familiarity, gender differences, vocabulary, and English reading comprehension of university students in Thailand. The participants were randomly selected from the population of third-year English major students in the Faculty of Humanities and Social Sciences at seven selected Rajabhat universities in the northeastern area of the country. The 127 participants were divided in two groups, one of 57 males and another of 70 females. The instruments used in this study were a reading comprehension test of familiar and unfamiliar topics, a vocabulary test, and a topic familiarity questionnaire, all of which were developed by the researcher. Before conducting the main study, a pilot study was performed for which a questionnaire was developed in order to obtain information on the participants' topic familiarity in order to choose the topics to develop a test on reading comprehension of familiar and unfamiliar topics and a test on vocabulary, both instruments to be used for the main study. The participants in the pilot study were composed of 40 third-year English major students who did not participate in the main study. The results of the questionnaire revealed that the female participants were familiar with cooking and cosmetics, and that the male students were familiar with transportation and sports. Passages related to these topics were then searched in English journals, newspapers, and magazines to develop the two tests on reading comprehension of familiar and unfamiliar topics and the test on reading vocabulary. The thesis advisor and English instructors at

university level were asked to review the test on reading comprehension of familiar and unfamiliar topics for the validity of its content, and they agreed that it was valid and appropriate for the main study. The test of reading comprehension of familiar and unfamiliar topics and the vocabulary test were tried for their reliability with the participants in the pilot study, following which changes were made to their items, and their reliability coefficient increased to 0.78 and 0.80 respectively. The questionnaire asking the participants to rate the topics in the test that were familiar to them was reviewed by the thesis advisor for its appropriateness.

In the main study, the participants were asked to take a test of reading comprehension of familiar and unfamiliar topics and a test of vocabulary, after which they were asked to rate the topics in the test that were the most familiar to the least familiar to them. Pearson's correlation coefficient was used to test the degree of relationship between the topic familiarity, vocabulary, and English reading comprehension. The *T* test was used to verify if the male participants had scored significantly higher than the females on male-related topics, and if the female participants had scored significantly higher than the males on female-related topics. A level of significance of 5% was selected as the criterion for all statistical tests.

The results supported the research hypothesis stating that there exists a significant positive correlation between the mean score participants earned on the test of reading comprehension of familiar and unfamiliar topics and on the test of vocabulary. On the other hand, the results did not support the hypothesis stating that the participants would score significantly higher on familiar topics than on unfamiliar topics on the test of reading comprehension of familiar and unfamiliar topics. In terms of gender-related topics, although

females earned higher scores than males on female-related topics, the scores between them were not significantly different. Therefore, the results did not support the hypothesis that females would score significantly higher than males on female-related topics on the test of reading comprehension of familiar and unfamiliar topics. It was also found that female participants earned higher scores than males on male-related topics on the test of reading comprehension of familiar and unfamiliar topics but the scores between them were not significantly different. The results did not support the hypothesis that males would score significantly higher than females on male-related topics on the test of reading comprehension of familiar and unfamiliar topics.

It can be concluded from the results of this study that a relationship existed between vocabulary knowledge and reading comprehension. This means that the students will comprehend a text better if they know its vocabulary. Students, therefore, should be prepared to gain and retain the vocabulary knowledge from various activities for their English reading comprehension. For example, students can enhance their vocabulary knowledge by reading familiar texts, looking up for new words in a dictionary, and by then pronouncing them aloud. They can also learn new words by spelling them out, writing them down when they meet them in class, and by repeatedly using them in writing and speaking. Furthermore, it can be concluded from the study that topic familiarity did not affect the participants' reading comprehension. It was possible to say that the sentences in the passages on cosmetics and transportation, which were unfamiliar topics, were short and not complex; therefore, it might have been easy for the participants to understand their meaning. Moreover, the main idea of these two topics was given in the beginning of the passages and followed by particular details, and each paragraph was short and contained only one or two sentences; therefore, the

participants could easily follow the writer's writing style. On the other hand, the sentences found in the passages on cooking and sports, though short, were more complex. Thus, the participants might have faced difficulties when reading. As for gender differences, the results of the present study indicated that the participant's quality of English reading comprehension did not differ following the four topics of cooking, cosmetics, transportation, and sports when both female and male participants read the passages that were familiar to them. Even though the researcher tried to make it even, the number of female participants in this study was higher than the number of male participants. Moreover, the left brain is generally used to develop language-learning processes, and generally, females make better use of the left brain than males do. For this reason, this left-brain development allows female participants to perform better in language learning than males do.

ความสัมพันธ์ระหว่างหัวเรื่องที่คุ้นเคย เพศ คำศัพท์ และความเข้าใจในการอ่านภาษาอังกฤษของ
นักศึกษาระดับมหาวิทยาลัยในประเทศไทย

บทคัดย่อ
ของ
นัจริชา จันท์ศรี

เสนอต่อบัณฑิตวิทยาลัย มหาวิทยาลัยศรีนครินทรวิโรฒ เพื่อเป็นส่วนหนึ่งของการศึกษา
ตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต สาขาวิชาภาษาอังกฤษ
พฤษภาคม 2551

นัจจิชา จันท์ศรี (2551). ความสัมพันธ์ระหว่างหัวเรื่องที่คุ้นเคย เพศ คำศัพท์ และความเข้าใจในการอ่านภาษาอังกฤษของนักศึกษาระดับมหาวิทยาลัยในประเทศไทย. ปรินูญานินพนธ์ ศศ.ม. (ภาษาอังกฤษ). กรุงเทพฯ: บัณฑิตวิทยาลัย มหาวิทยาลัยศรีนครินทรวิโรฒ. คณะกรรมการควบคุม: อาจารย์ ดร. สายวรุณ จำปาวลัย อาจารย์ ดร. ศิริพันธ์ ศรีเนาวรัตน์

วิทยานิพนธ์ฉบับนี้มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ของหัวเรื่องที่คุ้นเคย ความแตกต่างในด้านเพศ คำศัพท์ และความเข้าใจในการอ่านภาษาอังกฤษของนักศึกษาระดับมหาวิทยาลัยในประเทศไทย ประชากรกลุ่มตัวอย่างใช้การเลือกแบบสุ่ม โดยเลือกจากนักศึกษาวิชาเอกภาษาอังกฤษ ชั้นปีที่ 3 คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏในภาคตะวันออกเฉียงเหนือจำนวน 7 แห่ง จำนวนประชากรมีทั้งสิ้น 127 คน โดยแบ่งออกเป็น 2 กลุ่มคือ (1) นักศึกษาชาย จำนวน 57 คน และ (2) นักศึกษาหญิง จำนวน 70 คน เครื่องมือที่ใช้ในการดำเนินการวิจัยครั้งนี้ประกอบด้วย แบบทดสอบการอ่านเพื่อความเข้าใจของหัวเรื่องที่คุ้นเคยและไม่คุ้นเคย แบบทดสอบคำศัพท์ และแบบสอบถามความคุ้นเคยในหัวเรื่อง ซึ่งผู้วิจัยสร้างขึ้น ก่อนทำการเก็บข้อมูลจริง ผู้วิจัยได้จัดทำแบบสอบถามความคุ้นเคยในหัวเรื่องออกสอบถามนักศึกษาเอกภาษาอังกฤษชั้นปีที่ 3 จำนวน 40 คน ที่ไม่ใช่ตัวอย่างประชากร เพื่อเลือกหัวเรื่องสำหรับสร้างแบบทดสอบการอ่านเพื่อความเข้าใจของหัวเรื่องที่คุ้นเคยและไม่คุ้นเคย และแบบทดสอบคำศัพท์ เพื่อนำไปใช้ในการเก็บข้อมูลจริง ผลของแบบสอบถามพบว่า นักศึกษาหญิงคุ้นเคยกับหัวเรื่องดังนี้ เรื่องการทำอาหารและเรื่องเครื่องสำอาง ส่วนนักศึกษาชายคุ้นเคยกับหัวเรื่องเกี่ยวกับเรื่องการขนส่งและเรื่องกีฬา ต่อจากนั้นผู้วิจัยค้นคว้าหาเนื้อความเกี่ยวกับหัวข้อดังกล่าวในวารสาร หนังสือพิมพ์ หรือนิตยสารภาษาอังกฤษ เพื่อสร้างแบบทดสอบการอ่านเพื่อความเข้าใจของหัวเรื่องที่คุ้นเคยและไม่คุ้นเคย และแบบทดสอบคำศัพท์ ซึ่งเครื่องมือนี้ได้รับการตรวจสอบความตรงเชิงเนื้อหาจากอาจารย์ที่ปรึกษาและอาจารย์สอนภาษาอังกฤษในระดับมหาวิทยาลัย ซึ่งอาจารย์ทั้งสองคนเห็นพ้องว่าเนื้อหาถูกต้องและเหมาะสมในการนำมาใช้ในงานวิจัยหลักครั้งนี้ จากนั้นผู้วิจัยนำแบบทดสอบการอ่านเพื่อความเข้าใจของหัวเรื่องที่คุ้นเคยและไม่คุ้นเคย และแบบทดสอบคำศัพท์ออกทดลองใช้กับนักศึกษาที่ไม่ใช่กลุ่มตัวอย่างประชากร เพื่อวัดค่าความเชื่อมั่นของข้อสอบ ผลจากการทดลองใช้ข้อสอบ ผู้วิจัยได้แก้ไขข้อสอบบางข้อ และค่าความเชื่อมั่นของข้อสอบการอ่านเพื่อความเข้าใจของหัวเรื่องที่คุ้นเคยและไม่คุ้นเคย และแบบทดสอบคำศัพท์คือ 0.78 และ 0.80 ตามลำดับแบบสอบถามเพื่อวัดความคุ้นเคยเกี่ยวกับหัวเรื่องได้รับการตรวจจากอาจารย์ที่ปรึกษาในด้านความเหมาะสมเกี่ยวกับหัวข้อ

ในการทดลองจริง นักศึกษาทำแบบทดสอบการอ่านเพื่อความเข้าใจของหัวเรื่องที่คุ้นเคยและไม่คุ้นเคย และแบบทดสอบคำศัพท์ หลังจากนั้นนักศึกษาได้ให้ระดับคะแนนหัวเรื่องที่คุ้นเคยมากที่สุดและหัวเรื่องที่คุ้นเคยน้อยที่สุดในแบบสอบถามวัดความคุ้นเคยเกี่ยวกับหัวเรื่อง ค่า Pearson's correlation

coefficient ได้นำมาใช้เพื่อทดสอบความสัมพันธ์ระหว่างความคุ้นเคยเกี่ยวกับหัวเรื่อง คำศัพท์ และความเข้าใจในการอ่าน และค่าสถิติ *t-test* ได้นำมาใช้เพื่อทดสอบว่านักศึกษาชายจะได้คะแนนสูงกว่านักศึกษาหญิงอย่างมีนัยสำคัญ เมื่ออ่านหัวเรื่องที่นักศึกษาชายคุ้นเคย และ นักศึกษาหญิงจะได้คะแนนสูงกว่านักศึกษาชายอย่างมีนัยสำคัญ เมื่ออ่านหัวเรื่องที่นักศึกษาหญิงคุ้นเคย ระดับนัยสำคัญทางสถิติคือ .05

ผลการวิจัยสนับสนุนสมมติฐานการวิจัยที่ว่าคะแนนในแบบทดสอบการอ่านเพื่อความเข้าใจของหัวเรื่องที่คุ้นเคยและไม่คุ้นเคย และแบบทดสอบคำศัพท์ มีความสัมพันธ์เชิงบวกอย่างมีนัยสำคัญทางสถิติ อย่างไรก็ตามผลการวิจัยไม่สนับสนุนสมมติฐานการวิจัยที่ว่านักศึกษาจะทำคะแนนในแบบทดสอบการอ่านเพื่อความเข้าใจของหัวเรื่องที่คุ้นเคยและไม่คุ้นเคย ได้สูงอย่างมีนัยสำคัญในหัวเรื่องที่นักศึกษาคุ้นเคยมากกว่าในหัวเรื่องที่นักศึกษาไม่คุ้นเคย จากการวิจัยเกี่ยวกับความแตกต่างด้านเพศ ผลการวิจัยพบว่า แม้ว่านักศึกษาหญิงจะทำคะแนนได้สูงกว่านักศึกษาชายในหัวเรื่องที่เกี่ยวกับนักศึกษาหญิง แต่คะแนนที่ได้ไม่มีความแตกต่างอย่างมีนัยสำคัญ ดังนั้นผลการวิจัยไม่สนับสนุนสมมติฐานการวิจัยที่ว่านักศึกษาหญิงจะได้คะแนนสูงกว่านักศึกษาชายอย่างมีนัยสำคัญในหัวเรื่องที่เกี่ยวกับนักศึกษาหญิง นอกจากนี้ผลการวิจัยยังพบว่านักศึกษาหญิงได้คะแนนสูงกว่านักศึกษาชายในหัวเรื่องที่เกี่ยวกับนักศึกษาชาย แต่คะแนนที่ได้ไม่มีความแตกต่างอย่างมีนัยสำคัญ ดังนั้นผลการวิจัยไม่สนับสนุนสมมติฐานการวิจัยที่ว่านักศึกษาชายจะได้คะแนนสูงกว่านักศึกษาหญิงอย่างมีนัยสำคัญในหัวเรื่องที่เกี่ยวกับนักศึกษาชาย

จากผลการวิจัยครั้งนี้สามารถสรุปได้ว่า คำศัพท์มีความสัมพันธ์กันกับความเข้าใจในการอ่าน ซึ่งหมายความว่านักศึกษาจะเข้าใจเนื้อหาที่อ่านได้ดีขึ้น ถ้านักศึกษารู้คำศัพท์ในเนื้อหานั้นๆ ดังนั้น นักศึกษาควรเตรียมความพร้อมในการรับรู้และมีความคงทนในการจำคำศัพท์ กิจกรรมต่างๆในการรับรู้คำศัพท์ เช่น อ่านเนื้อเรื่องที่คุ้นเคย หาคำศัพท์ในพจนานุกรมและออกเสียงคำศัพท์นั้น นอกจากนั้น นักศึกษาสามารถเพิ่มพูนคำศัพท์ด้วยการฝึกสะกดคำศัพท์ จดคำศัพท์ เขียนและพูดคำศัพท์ซ้ำๆ นอกจากนั้นจากผลการวิจัยสามารถสรุปได้ว่าความคุ้นเคยในหัวเรื่องไม่มีผลต่อความเข้าใจในการอ่าน ทั้งนี้อาจเป็นไปได้ว่าประโยคของหัวเรื่องที่เกี่ยวข้องกับเครื่องสำอางและการขนส่งซึ่งเป็นหัวเรื่องที่ไม่คุ้นเคย สั้นและไม่ซับซ้อน ดังนั้นนักศึกษาสามารถเข้าใจความหมายของประโยคได้ง่าย นอกจากนั้นในเรื่องรูปแบบการเขียน ผู้เขียนจะเน้นเนื้อหาหลักของเรื่องในช่วงแรกและต่อด้วยเนื้อหาเฉพาะ และเนื้อหาแต่ละย่อหน้าของทั้งสองเรื่องนั้นสั้นและประกอบด้วยประโยคเพียง 1-2 ประโยคเท่านั้น ดังนั้น นักศึกษาจึงสามารถเข้าใจลำดับการเขียนของผู้เขียนได้ง่าย ในส่วนของหัวเรื่องเกี่ยวกับการทำอาหารและกีฬา ประโยคแต่ละประโยคสั้นแต่มีความซับซ้อนมากกว่าเรื่องเกี่ยวกับเครื่องสำอางและเรื่องการขนส่ง ดังนั้นจึงอาจจะทำให้นักศึกษาประสบปัญหาในการอ่าน สำหรับเรื่องความแตกต่างของเพศ ผลการวิจัยพบว่าความแตกต่างของเพศไม่มีผลต่อการความเข้าใจในการอ่านหัวเรื่องเกี่ยวกับ การ

ทำอาหาร เครื่องสำอาง การขนส่งและกีฬา เมื่อนักศึกษาชายและนักศึกษาหญิงอ่านเรื่องที่นักศึกษา
คุ้นเคยอยู่แล้ว เนื่องจากอาจเป็นเพราะผู้วิจัยได้พยายามทำให้จำนวนนักศึกษาชายและนักศึกษาหญิงมี
จำนวนเท่ากัน แต่จำนวนนักศึกษาหญิงมีจำนวนมากกว่านักศึกษาชายเนื่องจากนักศึกษาชายมีจำนวน
จำกัด ผลของการวิจัยจึงทำให้เพศไม่มีผลต่อการอ่านเพื่อความเข้าใจ นอกจากนี้ จากการศึกษาเรื่อง
หน้าที่ของสมองฝั่งซ้ายและฝั่งขวาพบว่า โดยทั่วไปแล้วสมองฝั่งซ้ายจะถูกใช้พัฒนากระบวนการเรียนรู้
ทางภาษา และผู้หญิงใช้สมองฝั่งซ้ายในการพัฒนากระบวนการเรียนรู้ทางภาษาได้ดีกว่าผู้ชาย ดังนั้น
ผู้หญิงจึงมีความสามารถในการเรียนรู้ทางภาษาได้ดีกว่าผู้ชาย

The thesis titled

“A Relationship between Topic Familiarity, Gender Differences, Vocabulary, and English Reading Comprehension of Students at the University Level in Thailand”

By

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has approved by the Graduate School as partial fulfillment of the requirements for the Master of Arts degree in English of Srinakharinwirot University.

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TABLE OF CONTENTS (continued)

CHAPTER	Page
Instrument: Vocabulary Test	14
Instrument: Questionnaire on Topic Familiarity	15
Data Collection Procedures.....	15
Confidentiality of the Participants and of Their Responses.....	15
Data Analysis	16
Organization of the Study	16
II REVIEW OF THE LITERATURE AND RELATED RESEARCH.....	17
English Reading Problems of Thai Students	18
What is Reading Comprehension?.....	23
Reading Models	24
Reading Components	25
Factors Influencing the Reader's Comprehension.....	26
The Roles of Vocabulary in English Reading Comprehension	28
Research Studies related to Vocabulary in English Reading Comprehension	30
Topic Familiarity in Reading Comprehension.....	32
Research Studies related to Topic Familiarity in Reading Comprehension	33
Gender Differences and Topic Familiarity	35
Research Studies related to Gender Differences and Topic Familiarity.....	35

TABLE OF CONTENTS (continued)

CHAPTER	Page
III RESEARCH METHODOLOGY.....	39
Method.....	39
Participants.....	39
Selection of the universities.....	39
Selection of the participants.....	41
Instrumentation.....	42
Pilot study.....	42
Instrument: Questionnaire on Topic Familiarity.....	42
Instrument: Reading Comprehension Test of Familiar and Unfamiliar Topics.....	44
Instrument: Vocabulary Test.....	45
Main study.....	46
Instrument: Reading Comprehension Test of Familiar and Unfamiliar Topics.....	46
Instrument: Vocabulary Test.....	47
Instrument: Questionnaire on Topic Familiarity.....	47
Data Collection Procedures.....	48
Data Collection.....	48
Data Analysis.....	48
Summary.....	49

TABLE OF CONTENTS (continued)

CHAPTER	Page
IV FINDINGS.....	50
Topic Familiarity Questionnaire.....	51
Research Hypothesis One.....	52
Research Hypothesis Two.....	53
Research Hypothesis Three.....	54
Research Hypothesis Four.....	55
Summary.....	56
V CONCLUSION AND DISCUSSION.....	57
Discussion for Research Hypothesis One.....	58
Discussion for Research Hypothesis Two.....	59
Discussion for Research Hypotheses Three and Four.....	61
Recommendations for Further Studies.....	62
Summary of the Study.....	63
REFERENCES.....	64
APPENDICES.....	72
APPENDIX A: Questionnaire of Topic Familiarity in the Pilot Study.....	73
APPENDIX B: Reading Comprehension Test of Familiar and Unfamiliar Topics.....	76
APPENDIX C: Vocabulary Test.....	86

TABLE OF CONTENTS (continued)

CHAPTER	Page
APPENDIX D: Questionnaire of Topic Familiarity in the Main Study.....	91
VITAE	94

LIST OF TABLES

Table		Page
1	Females' Responses Obtained through Topic Familiarity Questionnaire in the Pilot Study	43
2	Males' Responses Obtained through Topic Familiarity Questionnaire in the Pilot Study.....	43
3	Responses Obtained from the Topic-Familiarity Questionnaire in the Main Study	51
4	Males' Responses Obtained from the Topic-Familiarity Questionnaire in the Main Study	52
5	Females' Responses Obtained from the Topic-Familiarity Questionnaire in the Main Study	52
6	Correlation Coefficients between Reading Comprehension Test of Familiar and Unfamiliar Topics and Vocabulary Test.....	53
7	Mean Score, Standard Deviation, and t Value of Familiar and Unfamiliar Topics	54
8	T-Test Comparison of Females and Males Participants on Female-Related Topic.....	55
9	T-Test Comparison of Females and Males Participants on Male-Related Topics.....	56

CHAPTER I

INTRODUCTION

Background of the Study

English is widely used as a medium of communication in Southeast Asian countries. In Malaysia, the Philippines, and Singapore, for example, where people speak different languages, English serves as an official language to help them communicate effectively. In Thailand, Vietnam, and Indonesia, English is taught in schools as the first foreign language, and it is also the preferred communicative tool in international conferences, newspapers, on radio and television, and in telecommunications.

In Thailand, most of the information related to high technology and science and to education is introduced from English-speaking countries. Consequently, Thais need a very good command of English to access such information. English used to be offered as an elective course in the previous national school curriculum, but, with the increasing importance of this international language, it became a compulsory course at all levels in the new curriculum, still currently in use (Ministry of Education, 2002).

According to this revised curriculum (Ministry of Education, 2002), elementary and secondary students are expected to understand and interpret messages taken from a variety of English materials. For example, they need to understand English newspapers and Internet websites written in English. At university and college, students are required to read English textbooks, academic journals, and research reports as Thai translations are not available for them. Therefore, English reading is used more than the other language skills (Polmanee & Sinsuwan, 2001).

English Reading Problems in Thai Students

In the current national curriculum, English teachers are encouraged to apply various techniques to ensure the best success in developing students' reading abilities (Ministry of Education, 2002). However, Thai students still have problems when they read English texts. For example, a recent study conducted to investigate the reading ability of students in Mathayomsuksa 6 at a school in Bangkok found that it was low (Songsiri, 1999). Similarly, Yunibandhu (2004) also found that the reading abilities of secondary students who moved from Thai government schools to Thai international schools were low. At university or college level, the results of a study conducted by Sucompa (1998) revealed that the English reading abilities of students in tourism at the Rajamangala Institute of Technology (RIT) were low because they could not read and write correspondence or e-mail messages in English. Meckhayai and Puthong (2004) concluded that the reading abilities of graduate students at Maejo University were low because they could not understand the content of Internet webpages, academic journals, and academic textbooks written in English.

The reading abilities of Thai learners of English at all levels were considered low. These problems in English reading comprehension came from the reading materials themselves, limited vocabulary, and a lack of background knowledge.

According to Thai educators, the reading materials currently available in Thai schools may not be relevant to students' everyday life or interests (Chandavimol, 1998). Chandavimol further stated that the reading texts used in Thai schools are not related to what the students see on television or to what they read in magazines or newspapers. Added to this, the texts are not interesting enough to motivate the young readers who, therefore, may not pay attention to them.

Moreover, some English reading materials may be too difficult for Thai students who, when they encounter unfamiliar words in reading, cannot guess their meaning. Therefore, word novelty is another problem for Thai readers. Vijchulata and Subphadoongchone (2000) examined first-year science students at Mahidol University and their ability to guess the meaning of the scientific words. The results of the study revealed that the students had limited vocabulary knowledge, and this was a source of difficulties in guessing word meaning. It was also found in a study conducted by Chinarat (2001) that students in grade 11 at Samsen Wittayalai School in Bangkok were unable to guess the meaning of the target words in both simple and complicated contexts because they did not have enough vocabulary knowledge. Additionally, Jesdapornpun (2001) found that all technicians working at a Thai telecommunications and information technology company were unable to understand unknown words and the meaning of the sentences in their reading materials when confronted with long and complex sentences. Furthermore, the results of a research conducted by Tanghirunwat (2003) to investigate the reading abilities of Thai telecommunications engineers when reading manuals and technical textbooks showed that they had problems with vocabulary, grammar, and content. Moreover, Meckhayai and Puthong found that graduate students at Maejo University could not understand the texts being read because they did not have adequate vocabulary (Meckhayai & Puthong, 2004). Similarly, Chaisuriya (2006) found that graduate students enrolled in the academic year 2006 in the Department of Business Administration in the Faculty of Humanities and Social Sciences at Burapha University could not understand the reading materials because they did not know the meaning of difficult words. Chaisuriya, therefore, concluded that the reading problems of these students came from limited vocabulary (Chaisuriya, 2006).

Besides, Thai readers do not have any background knowledge relevant to their reading texts, and this may cause difficulties in their reading comprehension (Jesdapornpun, 2001). University students cannot link what they knew to what they read in the English texts, and this affect their understanding. Consequently, they do not perform well on tests of reading comprehension (Aksornjarung, 2003; Meckhayai & Puthong, 2004; Vijchulata & Subphadoongchone, 2000).

It can thus be concluded from the results of the cited studies that the first reading problem of Thai students may come from the reading material itself. That is, students are assigned to read English materials that are not relevant to their interests, so they might not feel concerned with the reading topics. The second problem is that students have limited vocabulary and since most of the new words, taken in their context, are already too difficult, they do not help the readers to guess their meaning. Finally, the last problem is that students have limited background knowledge and so are unable to understand the reading text. All these problems may influence Thai students' reading comprehension.

The Roles of Vocabulary in English Reading Comprehension

In reading, vocabulary is an important factor to help readers get meaning from the materials, and readers need more vocabulary in order to understand better the message of a written text (Aebersold & Field, 1997; Vijchulata & Subphadoongchone, 2000). With a more important vocabulary, students could enhance their abilities to guess the meaning of unknown words in the reading texts. Therefore, those who possess a more extensive vocabulary would better understand what they read than those with limited vocabulary (Qian, 2002). To enhance their reading vocabulary, students need to know how to acquire helpful vocabulary learning strategies.

According to Schmitt (1997), the most helpful vocabulary learning strategies are divided into three categories: (a) determination strategies, (b) memory strategies, and (c)

cognitive strategies. With regard to determination strategies, students guess the meaning of unknown words from their structural knowledge. Moreover, guessing the meaning of words from their context might help the readers who do not know these words better understand the texts being read (Nation, 1990; O'donnell & Wood, 2004; Schmitt, 1997). Furthermore, students use bilingual dictionaries to find the meaning of unknown words (Lawson & Hogben, 1996). According to memory strategies, students learn to spell words and to say new words aloud in order to retain vocabulary (Hulstijn, Holander & Greidanus, 1996; Nation, 1990; Schmitt, 1997). In cognitive strategies, students study vocabulary by repeatedly writing the words, and repeatedly speaking out the words. In addition, taking notes in class helps students create their own ways of vocabulary learning.

In conclusion, vocabulary learning strategies aim at better understanding the reading materials. Students comprehend a text when they have sufficient vocabulary and appropriate strategies to increase vocabulary. It could be said that vocabulary plays an important role in reading comprehension. If students are able to guess the meaning of unknown words, they understand what they read.

To understand the importance of vocabulary in reading, several studies discussed the relationship between comprehension of a text and the understanding of its vocabulary.

The results of a study conducted to examine the role of vocabulary knowledge in the reading comprehension of American learners who studied Arabic as a foreign language revealed that vocabulary played an important role on the reading ability of the participants. Moreover, these students earned higher scores when they encountered synonyms, polysemy, and collocation in the context of the Test of English as a Foreign Language (TOEFL) administered to them in 2000. Therefore, reading vocabulary was a good predictor of the performance on reading comprehension. Similarly, active

vocabulary was highly correlated with the students' reading comprehension. It was possible to affirm that these students took an effort to transform passive vocabulary into an active one. In other words, they did not find it necessary to transform active vocabulary into passive vocabulary when they read texts with a large number of active words. Thus, the students demonstrated better reading comprehension when they read texts containing active vocabulary. In addition, those who possessed a vocabulary of up to 2000 or 3000 words increased the quality of their reading comprehension (Golkar & Yamini, 2007; Khaldieh, 2001; Qian, 2002; Zhang & Annual, 2008).

It can thus be concluded from the results of several studies that vocabulary is greatly involved in English reading comprehension and that students who have a wide vocabulary perform better than the ones who possess a weaker vocabulary.

Topic Familiarity in Reading Comprehension

Reading is a cognitive process that includes language comprehension and language decoding (Hirsch, 2003; Wren, 2001). These two abilities are beneficial to the readers for them to comprehend the meaning of the reading texts. To perform these abilities related to increase in reading comprehension, the readers need to use their background knowledge to connect to the texts being read. The more background knowledge the readers possess on a topic, the clearer their understanding of the texts. The background knowledge related to a text is also relevant to topic familiarity. (Urquhart & Weir, 1998). Therefore, the learners should be familiar with the topic of the reading material in order to facilitate their understanding of it.

For example, the results of a research designed to examine the impact of topic familiarity, second language reading proficiency, and high-frequency words on incidental vocabulary acquisition showed that there was a significant interaction between reading comprehension, topic familiarity, and sight vocabulary (Pulido, 2003). Cecilia (2004)

conducted a study to investigate how third-year students of Chinese as a foreign language perform their reading ability when reading a variety of texts they were familiar with. The results revealed that these students had greater understanding when they read familiar topics. Moreover, the results in a study conducted by Lee (2007) showed that topic familiarity helped Korean students studying English as a foreign language comprehend the reading materials. Similarly, Leeser (2007) examined the effects of topic familiarity on the second-language reading comprehension of adult learners of Spanish enrolled in a course for beginners. The findings of this study revealed the significant effects of topic familiarity on reading comprehension, the participants earning greater scores on the topics they were familiar with than on the topics they were not familiar with.

In conclusion, the results of the previous studies indicated that topic familiarity has an influence on reading comprehension. Learners can apply their background knowledge to help them understand reading materials.

Gender Differences and Topic Familiarity

Although female students have better language learning skills than male students do (Green & Oxford, 1995; Zhenhui, 2005), male students can read better than females when they read topics they are interested in. Several studies conducted to examine whether gender differences affect the participants' reading comprehension found significant differences between gender differences and topic familiarity. Most of the studies showed that males demonstrated better performance on male-oriented texts; on the other hand, females performed better on female-oriented texts (Brantmeier, 2003; Bügel & Buunk, 1996; Sturm, 2003; Tanthanis, 2002).

Bügel and Buunk (1996), for example, conducted a study to examine whether gender differences influenced the reading comprehension of Dutch secondary students of intermediate English when the reading topics were mentioned. From the results, they

concluded that sex differences were an important indicator on the quality of reading comprehension. Similarly, Brantmeier (2003) examined the effects of the readers' gender and passage content on the reading comprehension of an intermediate class of Spanish as a second language. The results suggested that gender had an effect on second-language reading comprehension. On male-related topics, the male students earned higher scores than the female students did; conversely, female students performed better on female-related topics.

However, some studies revealed no significant differences between gender and topic familiarity. For example, Brantmeier (2004) investigated the level of topic familiarity and reading comprehension of male and female learners studying Spanish as a second language in a private midwestern university. The findings of the study indicated that the female students outscored the male students on both female-and male-related topics. Yazdanpanah (2007) also conducted a study investigating whether background knowledge and reading comprehension are affected by gender differences with international students of intermediate English in North Cyprus. The findings suggested that the participants' performance in reading comprehension was not significantly different. Therefore, Yazdanpanah concluded that text topic did not influence male and female performance on reading comprehension.

In conclusion, it can be seen that correlations do exist between gender differences and topic familiarity. Males prefer to read male-oriented texts, and females prefer to read female-oriented texts. However, the results of some studies do not point to any significant differences between genders when monitoring their reading comprehension. Thus, gender differences may influence the reading comprehension of students of English as a foreign and a second language.

Statement of the Problem

In Thailand, research studies concerning topic interest and reading comprehension, and others concerning the relationship between text comprehension and vocabulary development have been conducted. However, studies investigating the relationships between topic familiarity, vocabulary, gender differences and English text comprehension of university students could not be found. Therefore, this study was designed to investigate the relationships between topic familiarity, vocabulary, and reading comprehension. It also sought to see the differences in English reading ability between male and female students assigned to read topics that were partial to their gender.

Significance of the Study

This study investigated the relationships between topic familiarity, vocabulary, and reading comprehension, and if these were, in turn, related to gender differences. Therefore, the results of the study should be useful to teachers in preparing materials for their English-reading classrooms. If the results show that topic familiarity and vocabulary are beneficial to students in their reading comprehension, teachers might select topics for reading passages that are related to their learners' background knowledge. Moreover, if it was found that gender predetermined the readers' text comprehension, gender differences should be considered in developing materials for language classrooms.

Research Hypotheses

1. A positive relationship exists between the mean score the participants earn on the reading comprehension test of familiar and unfamiliar topics and on the vocabulary test.

2. On the reading comprehension test of familiar and unfamiliar topics, the participants will earn a higher mean score on the topics that are familiar to them than on the topics that are not familiar to them, regardless of gender.
3. On the reading comprehension test of familiar and unfamiliar topics, the mean score of the female participants will be higher than the mean score of the male participants on female-related topics.
4. On the reading comprehension test of familiar and unfamiliar topics, the mean score of the male participants will be higher than the mean score of the female participants on male-related topics.

Scope of the Study

This study was designed to investigate the relationships between topic familiarity, vocabulary, gender, and reading comprehension. However, The English proficiency of the participants was not tested in this study. The study was conducted with third-year English major students enrolled in the academic year 2006. The instruments employed were a questionnaire to obtain information on the participants' familiarity with the topic of the text, a reading comprehension test of familiar and unfamiliar topics, and a vocabulary test. The instruments were distributed to 127 university students enrolled in at least one reading course in the faculty of Humanities and Social Sciences at the following seven selected Rajabhat Universities: (a) Rajabhat Maha Sarakham University, (b) Ubon Ratchathani Rajabhat University, (c) Roi-Et Rajabhat University, (d) Chaiyaphum Rajabhat University, (e) Buriram Rajabhat University, (f) Surindra Rajabhat University, and (g) Loei Rajabhat University. The study was performed in the second semester of the academic year 2006 and with those who were willing to participate.

Methodology

Participants

Selection of the universities.

According to the Rajabhat University Act (2004), one of the commitments of Rajabhat Universities is to provide educational services to the community. Their curricula are not different to those of other public universities in big cities. The Rajabhat Universities in the northeastern part of Thailand count a greater number of students than the other universities in the same region (Commission on Higher Education, 2004). For this reason, the students of Rajabhat Universities in the northeastern part of Thailand could be considered as a representative sampling of university students throughout Thailand.

In addition, according to the Board of Investment (2005), investment in the northeastern provinces has been increasing for the last few years. It is expected that the investment of export companies will increase by 50 % over the next five years. Local Rajabhat Universities are ideally positioned to satisfy the workforce requirement of these export companies. Indeed, English reading comprehension is a very important skill for staffs of export companies who meet all sorts of English documents that they need to understand. For this reason, the researcher selected the participants from the Rajabhat Universities in the northeast area, and hoped that the results of the study would provide some useful information to English teachers to develop the materials necessary for their reading classes.

Half (50%) of the 13 Rajabhat Universities in the Northeastern part of Thailand were randomly selected to participate in this study, and these seven universities granted their permission to conduct this research with their students. These universities were: (a) Rajabhat Maha Sarakham University, (b) Ubon Ratchathani Rajabhat University, (c) Roi-

Et Rajabhat University, (d) Chaiyaphum Rajabhat University, (e) Buriram Rajabhat University, (f) Surindra Rajabhat University, and (g) Loei Rajabhat University.

Selection of the participants.

The participants of this study were composed of third-year English major students in the Faculty of Humanities and Social Sciences enrolled in the second semester of the academic year 2006 at the selected universities. These third-year students were selected as the sample group because of their ability to apply the reading skills necessary to properly answer the test included in this research. Thus, first-year students were not selected since they had to attend the fundamental courses as well as the basic reading course. The second-year students had already succeeded the reading courses, for example, Reading I and Reading II, and Reading Analysis. Fourth-year students must have experience training and most of the curriculum is more into selective courses than compulsory courses. Therefore, the third-year students were more adequate to represent the test group. The participants were formed of 70 female students and 57 male students chosen at random from the selected universities. Therefore, a total number of 127 students participated in this study.

Instrumentation

Pilot study.

Instrument: Questionnaire on Topic Familiarity

The topic familiarity questionnaire in the pilot study was to obtain the level of familiarity the participants had with context of the reading materials in order to choose appropriate themes for the actual test. The participants were asked to fill in their gender and then rate their familiarity to the topics presented by choosing one of four items on a 4-Likert scale graded thus: 4 = strongly familiar, 3 = familiar, 2 = unfamiliar, and 1 = strongly unfamiliar. The following formed the topics in the pilot questionnaire: (a) sports,

(b) cosmetics, (c) astrology, (d) transportation, (e) beauty and fashion, (f) politics, (g) literature, (h) war, (i) cooking, and (j) computer technology. After completing the questionnaire, the data were analyzed. The results of the topic familiarity questionnaire showed that the female students' two most familiar topics were cooking and cosmetics and that the male students' two most familiar topics were sports and transportation. From these, the researcher selected the topics in order to build the reading comprehension test of familiar and unfamiliar topics to be used in the study.

Instrument: Reading Comprehension Test of Familiar and Unfamiliar Topics

For this study, the passages about transportation and sports were taken from the Bangkok Post newspaper, the passage about cosmetics was taken from a magazine, and the passage about cooking was taken from a textbook. All these were selected in accordance with the results obtained from the topic familiarity questionnaire. Following this, the researcher created a multiple-choice test. Each passage contained ten questions with four choices of answers (one best correct answer and three distracters). The test was approved by two native speakers of English, one teaching at the secondary level and the other at university. The first pilot study was then conducted and the reliability of the test stood at .59, a rather low reliability. The difficulty and discrimination of the items were also analyzed, and some of these items were revised to be administered again. The reliability of the second test reached .78. After analyzing the difficulty, discrimination, and reliability of each item, seven items per passage were selected and approved.

Instrument: Vocabulary Test

High-frequency words and terminologies were favored as vocabulary items to be included in this study because the participants were expected to be familiar with them in their language-learning process. The high-frequency words were selected from the academic word list created by Coxhead (2004). Terminologies related to the reading

passages were selected and teachers in reading courses were asked to verify all the target words and to agree that the participants would likely be familiar with them. In the pilot study, each passage counted fifteen words. This vocabulary test was created with multiple-choice questions, each with one best correct answer, three distracters, and one answer stating “I don’t know.” The participants were asked to answer the test with the most probable answers; if they did not know the word, they were asked to mark “I don’t know.” The first pilot study was then conducted and the reliability of the test stood at .57, a quite low level. The difficulty and discrimination of the test items were also analyzed; some items were revised and re-administered. The reliability of the second test increased to .80. After analyzing the difficulty, discrimination, and reliability of each item of this vocabulary test, eight items per passage were selected and approved.

Main study.

Instrument: Reading Comprehension Test of Familiar and Unfamiliar Topics

Multiple-choice questions were developed by the researcher to assess the participants’ reading comprehension. The selected topics were divided into two groups: (a) male-related topics (sports and transportation), and (b) female-related topics (cooking and cosmetics). Therefore, the test used in the study was comprised of four expository passages about, respectively, cooking, cosmetics, sports and transportation. Each passage counted seven questions on reading comprehension, to which the participants were asked to choose the best correct answer from four choices. The test contained one correct answer and three distracters. The reliability of the test was 0.78.

Instrument: Vocabulary Test

In this study, multiple-choice items were used in the vocabulary test. Each question included four choices of possible English synonyms to a word (one correct answer, three distracters) and “I don’t know.” During the test, the participants were asked

to mark the best synonym if they knew the word. If they did not know the word, they were asked to mark "I don't know." The reliability of the test was 0.80.

Instrument: Questionnaire on Topic Familiarity

The questionnaire used in the study was developed by the researcher. The participants' familiarity with the topics at hand was obtained through a questionnaire consisting of two parts: (a) the participants' demographic information and (b) the participants' topic familiarity. After finishing the reading comprehension test of familiar and unfamiliar topics and the vocabulary test, the participants were asked to rate their familiarity with the topics they had just read about by choosing one of four items on a 4-Likert scale consisting of the following: 4 = strongly familiar, 3 = familiar, 2 = unfamiliar, and 1 = strongly unfamiliar. The topic familiarity obtained from the questionnaire was related to the scores on the reading comprehension test of familiar and unfamiliar topics.

Data Collection Procedures

The data were collected in the second semester of the academic year 2006. The researcher formally asked the president of each selected university for permission to conduct the study with their students. After permission was granted, the participants at the target universities were asked to complete the reading comprehension test of familiar and unfamiliar topics and vocabulary test. Following the tests, the participants were asked to rate the topics that were familiar to them.

Confidentiality of the Participants and of Their Responses

The participants were informed that their names and their personal data would not appear in the study. Furthermore, all of their personal data were destroyed immediately after the completion of the study.

Data Analysis

The students' scores on the reading comprehension test of familiar and unfamiliar topics and vocabulary test were analyzed using a Pearson's correlation coefficient. Paired-samples *t* test was used to find significant differences, if any, between the score students earned on the topics that were familiar to them and the topics that were not familiar to them on the reading comprehension test of familiar and unfamiliar topics. An independent *t* test was used to determine if females scored significantly higher than males on the female-related topics and if males scored significantly higher than females on the male-related topics. A level of significance of .05 was set up for all statistical tests.

Organization of the Study

Chapter I of this study presents its background and problems. Chapter II contains a review of the related literature and research studies relevant to the problem addressed in this study. Chapter III details the research methodology. Chapter IV presents the results, and Chapter V discusses the results and suggests directions for further study.

CHAPTER II

REVIEW OF THE LITERATURE AND RELATED RESEARCH

The present study aims to investigate the relationship between topic familiarity, vocabulary, gender differences, and the English reading comprehension of students at Rajabhat universities in the Northeastern area of Thailand. In order to provide a review of the relevant literature and research that form the background of this study, this chapter covers the following areas:

1. English Reading Problems of Thai Learners
2. What is Reading Comprehension?
3. The Roles of Vocabulary in English Reading Comprehension
4. Research Studies related to Vocabulary in Reading Comprehension
5. Topic Familiarity in Reading Comprehension
6. Research Studies related to Topic Familiarity in Reading Comprehension
7. Gender Differences and Topic Familiarity
8. Research Studies Related to Gender Differences and Topic Familiarity

The first part describes the English reading problems common to Thai learners. The following part defines reading comprehension. Part three presents the roles of vocabulary in English reading comprehension. The next part presents the research studies related to vocabulary in reading comprehension. The fifth part examines whether topic familiarity affects language learners' reading comprehension. In part six, a review of the research related to topic familiarity and reading comprehension is presented. The seventh part investigates the effects of gender differences on reading comprehension. Finally, the last part reviews the research studies related to gender differences and topic familiarity.

English Reading Problems of Thai Students

In the current national curriculum, English teachers are encouraged to apply various techniques to ensure the best success in developing their students' reading abilities (Ministry of Education, 2002). However, Thai students still have difficulties when they read English texts. For example, Yunibandhu (2004) conducted a study to investigate the language proficiency of Thai students who made a transition from the Thai schools to international schools. The researcher interviewed the participants, administered a test in order to measure their language proficiency, and observed them. With regard to English proficiency, the results of the study revealed that the Thai students who moved from public schools to international schools in Thailand showed reading problems. At university and college, Sucompa (1998) conducted a research to investigate the needs and problems of the English language usage of 135 students in tourism at the Rajamangala Institute of Technology (RIT). In order to delineate the participants' English needs and problems, a questionnaire was used to collect the data which were then analyzed by the program SPSS to calculate the percentage, mean, and standard deviation. The results of this study revealed that the students in tourism at RIT demonstrated English reading problems because they could not read and write English correspondence or e-mail messages written in English. For their part, Meckhayai and Puthong (2004) designed a study to investigate the needs and problems in the English usage of 273 graduate students at Maejo University to whom a questionnaire was distributed in February 2003. The results of the study revealed that the participants needed to possess reading comprehension skills to help them understand the information retrieved from English internet webpages, academic textbooks, and journals. The results also found that the participants had difficulties in reading comprehension because of limited vocabulary.

The reading abilities of Thai learners of English at all levels were considered low. The sources of the problems related to English reading comprehension came from the reading material itself, a limited vocabulary, and a lack of background knowledge.

According to Thai educators, the reading materials currently available in Thai schools may not be relevant to students' everyday life or interests (Chandavimol, 1998). Chandavimol further stated that the reading texts used in Thai schools are not related to what the students see on the television or not related to what they read in the magazines or newspapers. Furthermore, the texts are not interesting enough to motivate the students.

Moreover, some English reading materials may be too difficult for Thai students to understand. When they read unfamiliar words, students cannot guess their meaning; therefore, unfamiliar words are an additional problem for them. Vijchulata and Subphadoongchone (2000) examined 141 first-year science students at Mahidol University and their ability to guess the meaning of scientific words from their context. The research instruments were comprised of a vocabulary guessing test, a reading comprehension test, and a questionnaire. The multiple-choice vocabulary guessing test was divided into two types of questions: (a) one type related to unknown words for which contextual clues had been inserted in the text to facilitate the guessing of their meanings, and (b) a type for which no clues had been inserted in the text. The reading comprehension tests focused on scientific language and consisted of true or false questions, multiple-choice questions, cloze test questions, and short answers. As for the questionnaire, it investigated the type of vocabulary guessing strategies that the students preferred. These strategies were divided into two major groups: (a) those concerning speaking the word aloud and writing the words again and again, using pictures to explain the words, and having knowledge about the text topics, and (b) those related to extracting the meaning of unknown words such as parts of speech, punctuations, and affixes. The

results of the study revealed that the students scored better on the part of the vocabulary test containing contextual clues than on the part of the test without clues. It was thus possible to confirm that a text containing context clues is a good predictor of the readers' reading abilities. The results also pointed to the fact that the participants were unable to guess the meaning of unknown words from the context because of the limitation of their vocabulary.

Additionally, Chinarat (2001) conducted an experimental research to compare the English reading comprehension and English vocabulary knowledge of two groups of participants: one group who guessed English vocabulary from the context and one group who learned English vocabulary from a list of definitions provided with a text. The participants were composed of 88 students in grade 11 at Samsen Wittayalai School in Bangkok. They were divided into two groups: 44 students learning vocabulary from the simple and complex contexts and 44 students learning vocabulary from definitions. The research instruments were formed of vocabulary learning worksheets, vocabulary knowledge exercises, a vocabulary knowledge test, and a reading comprehension test. During the experimental sessions, the participants were asked to take the learning worksheets and write the answers to the exercises. Then the actual answer sheets to the exercises were given them. Following this, they took the test on vocabulary knowledge. After the experimental sessions, the reading comprehension test was administered. The results of this study revealed that the participants who learned vocabulary from the contexts and those who learned vocabulary from its list of definitions showed no significant differences in the quality of their reading comprehension. It can thus be said that these participants were unable to guess the meanings of the target words in both simple and complicated contexts because they did not possess enough vocabulary.

In addition to the previous studies, Jesdapornpun (2001) researched the English reading problems faced by 18 technical staffs of Samart Comtech, a Thai telecommunication and information technology company. In-depth interviews were conducted to collect the data for the study. The questions of the interviews concerned mainly the background of the participants and their reading strategies. The participants' background information focused on age, education, scope of work, and type of reading materials. To examine the participants' reading strategies, the interviews concentrated on their reading problems at work and the strategies used in reading. The findings of the study showed that all technical staffs working at Samart Comtech were unable to understand the unknown words and the meaning of the sentences in their reading materials when they read long and complex sentences.

Added to this range of studies, Tanghirunwat (2003) conducted a research to investigate the reading difficulties of 50 Thai engineers in the telecommunication industry when they read English manuals and technical textbooks. The researcher interviewed the participants to define these technical reading problems and the results pointed to difficulties in vocabulary, grammar, and content. Moreover, in a similar study conducted by Meckhayai and Puthong it was found that graduate students at Maejo University could not understand the texts being read because they did not have adequate vocabulary (Meckhayai & Puthong, 2004). Similarly, Chaisuriya (2006) examined the English reading problems of 154 graduate students of business administration enrolled in the academic year 2006 in the Faculty of Humanities and Social Sciences at Burapha University in Thailand. A questionnaire was used in this study in order to see the participants' frequency of English reading and their English reading problems. The results showed that these graduate students could not understand the reading materials because they did not know the meaning of the difficult words. Chaisuriya, therefore, concluded

that the reading problems of these participants came from their limited vocabulary (Chaisuriya, 2006).

Added to the reading problems created by their poor vocabulary, Thai readers do not have the background knowledge relevant to the reading texts, and this may be the source of more difficulties in text comprehension (Jesdapornpun, 2001). University students cannot link what they know to what they read in the English texts, and this adds to their weakness in reading. Thus, they cannot reach high scores on tests of reading comprehension (Meckhayai & Puthong, 2004; Vijchulata & Subphadoongchone, 2000).

According to a study conducted by Vijchulata and Subphadoongchone (2000), science students from Mahidol University could not understand the scientific texts because of the limitations of their background knowledge. Meckhayai and Puthong (2004) for their part concluded from the results of their investigation of the needs and problems in English language usage of graduate students at Maejo University that the participants could not comprehend English reading materials because the knowledge they had on the topics discussed in the reading texts was too poor.

Therefore, it could be concluded from the results of the previous studies that the first reading problem of Thai students may come from the reading material itself. That is, the students are assigned to read English materials that are not relevant to their interests, so they might not be interested in the reading topics. The second problem relates to the students, limited vocabulary since most of the words in context are too difficult for them to guess. The last problem concerns the students' limited background knowledge, which is too poor for them to understand the reading texts. All these problems influence Thai students' reading comprehension.

What is Reading Comprehension?

According to Urquhart and Weir (1998), reading comprehension is the process by which readers use their cognitive abilities to help them understand a written text. These cognitive abilities in reading are composed of two skills, language comprehension and language decoding. A reader needs to use these cognitive abilities to comprehend the meaning of a text and the intent of its author because different reading materials convey different kinds of information. In order to perform reading comprehension skills, the readers must possess the background knowledge relevant to what they are reading. Additionally, language decoding is an important cognitive element for reading comprehension, one that leads the readers to recognize and process a written text. When readers encounter words that are frequently used, they become familiar with them, and word decoding is developed during this process.

To have the necessary abilities to decode a written text, a reader also needs to learn to guess unfamiliar words from their context (Hirsch, 2003; Wren, 2001). Furthermore, reading comprehension is an interactive process between the readers, the texts and the contexts (Aebbersold & Field, 1997; Gunning, 2003; Roe, Stoodt & Burns, 2001). To improve comprehension, the reading process involves the prior knowledge that the readers possess, the strategies they use, and the attitude to reading they have. The texts are messages that the writers intend to communicate and which are varied in genre, topic, style, and level of difficulty. The context includes the information in the text being read. A writer's message might be facts, entertainment, ideas, and feelings (Nutall, 2000).

In conclusion, reading comprehension is a process that makes readers understand a text, and for which they use two skills related to cognitive abilities: language comprehension and language decoding. Because of the variety of information found from text to text, and through which a writer interacts with the readers, these readers need to

activate their background knowledge to understand the writer's message. In order to have the necessary abilities to decode language from the written texts, readers need to guess the meaning of unknown words. In addition, reading comprehension is an interaction between the readers, the written texts, and the context. If the readers wish to comprehend the information the author wanted to convey, they need to possess prior knowledge on the text at hand, appropriate reading strategies, and motivation toward their reading.

Reading Models

To describe the interactive process of reading for comprehension between a reader and a text, the educators constructed models describing what happens when a reader reads. Barnett (as cited in Aebersold & Field, 1997), Smith and Goodman (as cited in Alderson, 2000), and Gough (as cited in Urquhart & Weir, 1998) indicated that the reading models comprised: (a) a bottom-up model, (b) a top-down model, and (c) an interactive model.

The bottom-up model is a process of language decoding by which readers construct the meaning of words from the smallest units (from letters to words to phrases, and then to sentences). These bits of data must be perceived by the readers before a higher level of understanding transforms and recodes them. This process begins when an initial reading confuses the readers, when they cannot understand the messages which the writer intended to convey. This happens if the readers lack of background knowledge, or if the writer's idea is different from the readers'.

On the other hand, the top-down reading model is a reading process beginning in the mind of the readers that process an assumption about the meaning of a text. This top-down process emphasizes what the reader brings to the text, such as prior knowledge and experiences, and it proceeds from the whole of a text to its parts. Moreover, comprehension of a text begins in the mind of the readers, who already have some ideas

about what might come next in the text. This model is used when the readers interpret assumptions and make inferences.

With regard to the interactive reading model, the readers use both the bottom-up and top-down processes to comprehend a text throughout the reading process. In this model, the readers also use their background knowledge, adding their level of language proficiency, motivation, diverse reading strategies, and their cultural beliefs, all supporting their decoding of the reading materials. This means that to guess the text content the readers use not only their expectations and previous understanding, but also what is in the text. The bottom-up and top-down processes can occur simultaneously.

It can be concluded that readers use both bottom-up and top-down strategies to comprehend a text and the mixing of these two types of strategies construct the interactive model. Building text comprehension sentence by sentence is the bottom-up model. The readers may use the top-down model to comprehend the larger parts of a text such as a paragraph.

Reading Component

Educators have discussed the components of reading comprehension and sorted them out into the following four categories: word recognition, language, background knowledge, and operational knowledge (Urquhart & Weir, 1998).

1. **Word Recognition.** This means that the readers have to know the lexicon. The readers of English have to understand not only the meaning of words, but they also need to be familiar with the English sounds in order to recognize words more easily.
2. **Language.** Apart from word recognition, which involves lexicon and phonetics, language is another component of reading comprehension, and includes syntax, cohesion, and text structure.

3. Background knowledge. In order to increase comprehension, readers need to bring their background knowledge to their reading materials. Moreover, it can be assumed that readers who have particular background knowledge can use their existing knowledge to achieve their comprehension.
4. Operational knowledge. This refers to knowing how to manage the reading process. That is, when readers read, they know what they have to do first, how to solve problems, and why use specific strategies to solve their reading problems.

Another important component in reading comprehension is the role of reasoning (Gunning, 2003). Because reasoning and background knowledge interact, readers use their background knowledge to infer, analyze a situation found in a text, draw conclusions, or evaluate the information. Gunning (2003) further stated that reading comprehension relies on the ability of the reader using background knowledge to make inferences. Readers who have better background knowledge and have the ability to connect what they know and what they read have greater comprehension of the reading texts.

Factors Influencing the Reader's Comprehension

Language learners might have difficulties when they read. It has been found by educators of English as a second or foreign language (ESL/EFL) that major factors might be the causes of these reading comprehension difficulties (Adunyarittigun, 2002). These factors include vocabulary and background knowledge.

Vocabulary knowledge is an important factor in reading comprehension (Gunning, 2002; Koda, 2004; Roe, Stodt & Burns, 1998; Urquhart & Weir, 1998; Yun & Ping, 2007). When students read academic articles or difficult texts, they may face unfamiliar words of which they do not know the meaning (Aebersold & Field, 1997). As a consequence, they have vocabulary problems during the reading process (Nuttall, 2000).

For example, readers might have difficulties understanding the idioms, terminology, words of more general meaning, irony, synonyms, and antonyms provided in the reading materials, and these words may interfere with their reading since they do not allow the readers to move forward. Besides, readers of English need to understand the meaning of a word and need to understand its sound in order to remember its meaning (Richek, Caldwell, Jenings & Lerner, 1996; Urquhart & Weir, 1998). According to Schmitt (1997) and Wei (2007), vocabulary knowledge can be enhanced by looking up the new words in a dictionary to confirm the accuracy of their guessing and then pronouncing them aloud. Readers can also learn new words by spelling them out, writing them down when they meet them in class, and by repeatedly using them in writing and speaking. In addition, learners are required to guess the meaning of unfamiliar words by using their grammatical knowledge and from the context. They may also interact with other people such as the teacher or classmates by asking for information concerning these new words.

Moreover, the background knowledge or world knowledge stored in the readers' memories can help them understand reading texts better. Reading without background knowledge causes difficulties to readers (Heffernan, 2003). It was found in a study by Huang (2006) that background knowledge motivated the readers of English for academic purposes (EAP) to achieve the goal of reading. This was also found in a study conducted by Adunyarittigun (2002) in which a Thai graduate student in the information system program of a U.S. university had difficulties predicting or making inferences concerning the stories being read because he did not have any background knowledge on those stories. Therefore, to help students have a better understanding of their reading materials, it is recommended that they have a chance to read materials related to their areas of study (Gunning, 2002; Nassaji, 2002; Roe, Stoodt & Burns, 1998; Swaffar, Arens, & Byrnes, 1991; Urquhart & Weir, 1998; Yun & Ping, 2007). In other words, learners should be

familiar with the content or topic of the reading materials provided in the reading class. Topic familiarity allows them to apply their background knowledge to improve the reading strategies for a better understanding of the reading materials (Swaffar, Arens & Byrnes, 1991; Urquhart & Weir, 1998).

In conclusion, vocabulary knowledge and background knowledge may affect the reading comprehension of the readers. It has been found from studies that readers who are familiar with the topic at hand or possess the appropriate background knowledge on the reading texts can better understand or grasp the main idea and better predict or make inferences on the reading materials than those who do not possess such knowledge.

The Roles of Vocabulary in English Reading Comprehension

In reading, vocabulary plays an important role as it helps readers understand the meaning of the text being read; consequently, readers need more vocabulary in order to understand better the written message (Aebersold & Field, 1997; Vijchulata & Subphadoongchone, 2000). By having a greater vocabulary, readers could enhance their ability to guess the meaning of unknown words in reading texts. Therefore, readers who have an important vocabulary understand better what they read than those with a less important vocabulary (Qian, 2002). To enhance their reading vocabulary, readers need to know helpful vocabulary learning strategies.

The participants to a research conducted by Pulido (2004) increased their vocabulary retention when they read narrative passages they were familiar with. This suggests that the background knowledge readers have on their materials leads to their ability to gain reading vocabulary.

According to Schmitt (1997), the most helpful vocabulary learning strategies could be divided into three categories: (a) determination strategies, (b) memory strategies, and (c) cognitive strategies. With regard to determination strategies, students could guess

the meaning of unknown words from the knowledge they have on word structure. Moreover, guessing the meaning of words from their context might help students better understand the texts being read. To develop the strategies, the students need to be concerned with time and with the interruptions to the reading process. Students who become good at guessing meaning include the ones who already have knowledge about particular words, knowledge of the topics that they are reading, and knowledge about the structure of the topic (Nation, 1990; Nation, 2001; O'donnell & Wood, 2004; Schmitt, 1997).

Furthermore, according to Lawson and Hogben (1996), the students used bilingual dictionary to find the meaning of the unknown words. As a strategy to increase memory, students learned to spell new words and say them aloud in order to retain vocabulary (Hulstijn, Holander, & Greidanus, 1996; Nation, 1990; Schmitt, 1997). And as part of cognitive strategies, students could study vocabulary by repeatedly writing the words, and repeatedly speaking out the words. In addition, taking notes in class could help students create new ways in vocabulary learning.

In conclusion, vocabulary learning strategies are aimed at better understand the reading materials. Students comprehend a text when they have sufficient vocabulary and appropriate strategies to gain new words. It can be said that vocabulary plays an important role in reading comprehension. If students were able to guess the meaning of unknown words, they would understand what they read. Thus, teachers of English should pay more attention to enhance their students' vocabulary.

Research Studies related to Vocabulary in Reading Comprehension

To understand the importance of vocabulary in reading, several studies discussed if understanding a text is related to the understanding of the vocabulary in the text.

Pulido (2004) investigated the effects of topic familiarity on reading comprehension and the relationship between text comprehension and vocabulary with students of Spanish as a second language. First, the participants were asked to complete a questionnaire on topic familiarity. Then they were assigned four narrative passages, two of familiar topics (The Trip to the Supermarket and The Doctor's Appointment) and two of unfamiliar topics (Publishing an Article and Buying a House), and asked to retell the stories. The participants did a yes-no checklist and a test on vocabulary gain. The findings revealed that the participants gained more words when reading familiar topics than when reading topics they were not familiar with.

The results of a study conducted to examine the importance of vocabulary knowledge in the reading comprehension of 46 American learners who attended Arabic as a foreign language class confirmed that it played an important role (Khaldieh, 2001). The participants were divided into two groups, a high proficiency group and a low proficiency group, and were then asked to read an expository passage written in English. To assess their reading comprehension, after reading, they immediately wrote down in their first language what they could remember. In order to measure their vocabulary knowledge, they also performed a vocabulary task. The finding of the study showed that the reading comprehension of the participants was highly correlated to the quality of their vocabulary since those with higher vocabulary earned higher scores on the recall task.

Moreover, Qian (2002) investigated the relationship between vocabulary and reading comprehension in academic context. The participants were composed of 217 university students in an ESL program in Toronto, Canada. They came from different

countries and academic fields. The participants answered the reading comprehension section of the TOEFL administered in 2000 to measure their comprehension of the five passages. The five academic texts of the study were related to biology, astronomy, geography, art history, and biographies. The study made use of three instruments: a test on depth of vocabulary measuring three vocabulary elements (synonymy, polysemy, and collocations); a test of vocabulary levels used to measure the participants' vocabulary size; and a test of vocabulary which measured the knowledge of English synonyms. All instruments were administered together in one session. The results of the research revealed that the students earned higher scores when they encountered synonyms, polysemy, and collocations in the context of the TOEFL. Therefore, the reading vocabulary was a good predictor of the performance on reading comprehension (Qian, 2002).

Similarly, Golkar and Yamini (2007) studied the relationship between active and passive vocabulary knowledge, and reading comprehension. The participants were formed of 46 engineering students and 30 English students, all Iranians, studying at Shiraz University. Three research instruments were used and included a test on vocabulary to assess the importance of the participants' vocabulary, another vocabulary test to control the passive vocabulary, and the TOEFL to measure the participants' English proficiency. The study was performed in two sessions. In the first session, the participants took the passive vocabulary test and the test on vocabulary assessment. In the second session, they were asked to take the TOEFL. The findings showed that active vocabulary was highly correlated with the participants' reading comprehension. It was possible to say that the participants took an effort to transform passive vocabulary into active vocabulary, whereas it was not necessary for them to change active vocabulary into a passive one when they read texts with a large number of active words. Thus, the

participants showed better reading comprehension when they read texts with active vocabulary (Golkar & Yamini, 2007).

In addition to these studies, Zhang and Annual (2008) conducted a research study to explore the role of vocabulary in reading comprehension with 37 grade-10 students in Singapore. A test of vocabulary assessment was used to measure the participants' vocabulary knowledge. Moreover, a vocabulary test was also used to measure their reading comprehension. The results of the study revealed that the participants who had a vocabulary of 2000 to 3000 words had a higher level of reading comprehension (Zhang & Annual, 2008).

It could thus be concluded from the results of several research studies that vocabulary plays a very important role in English reading comprehension. Students who possess a larger vocabulary better understand a text than those whose vocabulary is weaker.

Topic Familiarity in Reading Comprehension

Reading is a cognitive process that language comprehension and language decoding (Hirsch, 2003; Wren, 2001). These two abilities are beneficial to the readers who wish to comprehend the meaning of reading texts. To perform the abilities that enhance reading comprehension, the readers need to use their background knowledge to connect to the texts being read. The more background knowledge the readers possess on a topic, the more understanding they obtain. Background knowledge a reader has on a text is also related to topic familiarity. (Urquhart & Weir, 1998). Therefore, the learners should be familiar with the topic of the reading material in order to facilitate their understanding of it.

Research Studies related to Topic Familiarity in Reading Comprehension

Language educators who have investigated the factors affecting EFL/ESL readers found that familiarity with the topics of the reading materials plays an important role in reading comprehension. The following are studies that have been conducted to examine the relationship between reading comprehension and topic familiarity.

Cecilia (2004) investigated the effects of topic familiarity and language difficulty on a variety of reading materials used by readers of Chinese as a foreign language. The participants were asked to read in Chinese under one of the following four conditions: topic familiarity and language of an easy level, topic familiarity and language of a difficult level, topic unfamiliarity and language of an easy level, and topic unfamiliarity and language of a difficult level. Then, the participants were asked to write everything they could remember without looking back to the passage. The results of the study revealed that topic familiarity helped the participants better understand Chinese as a foreign language.

Lee (2007) investigated the effects of topic familiarity on the reading comprehension of Korean EFL learners. The purpose of the study was to find whether topic familiarity affects the reading comprehension of EFL learners. The participants were 259 grade-11 students enrolled in English as a foreign language since grade 7. Of these participants, 132 were asked to read a short passage with a familiar topic (a birthday celebration in Korea) and the other 127 read a short passage discussing an Egyptian belief (the spirit of the dead), a less familiar topic. After reading, they were immediately asked to write down every idea they could remember. The results of the study revealed that the participants who read the passage with the familiar topic outscored the other participants.

Similarly, a study conducted by Leeser (2007) aimed at investigating whether topic familiarity affects L2 Spanish readers' comprehension. The participants of the study

were 94 L2 Spanish learners enrolled in an extra-curricular elementary Spanish course at a large, public university. The experiment was conducted over two sessions. At the first session, the participants were asked to complete a computerized reading span test in a computer lab in order to measure their working memory. On a computer screen, the participants read 80 sentences that were different in length, syntax, complexity, and plausibility. They were instructed to remember the last word of each sentence. After reading the sets of sentences, they then wrote down as many as they could remember of the last words of the sentences. During the second session, the participants were asked to complete a questionnaire on topic familiarity. Then they read four short narratives. Two of the passages (Going to College and Getting a Driver's License) were familiar to the participants and the other two (Obtaining a Green Card and Publishing an Article) were unfamiliar to them. After reading the passages, they were asked to write down as much as they could remember in their native language.

To measure vocabulary recognition, the participants were instructed to check "yes" or "no" next to 60 words taken from the text to confirm that they remembered these words. The findings revealed that familiarity with the topic of a text had a significant effect on reading comprehension. The participants could remember better when reading familiar topics. Besides, working memory yielded a significant effect on reading comprehension when the participants encountered familiar materials. When they read a passage that was familiar to them, they better remembered the vocabulary they were not familiar with.

In another study, Pulido (2004) investigated the effects of topic familiarity and the relationship between text comprehension and vocabulary in students of Spanish as a second language. First, the participants were asked to complete a questionnaire on topic familiarity. Then, they were assigned four narrative passages, two of familiar topics (The

Trip to the Supermarket and The Doctor's Appointment) and two of unfamiliar topics (Publishing an Article and Buying a House), and they were then asked to retell the stories. The participants did a yes-no checklist and a test on vocabulary gain. The results of the study revealed that the correlation between passage comprehension and vocabulary gain was slightly higher when readers were familiar with the topic at hand.

In brief, topic familiarity plays a crucial role in reading comprehension and vocabulary development. Learners get more meaning from the reading materials and their vocabulary is increased if they have background knowledge on what they read. Therefore, to enhance vocabulary, second and foreign language learners should be invited to read topics they are familiar with.

Gender Differences and Topic Familiarity

Many processes occur during the reading process. The one variable that might affect readers' comprehension is activation. As the previous studies indicated, readers use their background knowledge and experience to activate their comprehension during reading and better comprehend the texts (Brantmeier, 2004). Alderson (2000) mentioned that readers may have different background knowledge and experience to understand a text. Therefore, the reading products may also differ. Concerning the reader characteristics, Alderson (2000) stated that a researcher needs to be careful not to be biased toward gender. It could be said that a researcher need to pay more attention to gender differences. Many research studies have been conducted by ESL/EFL educators to investigate gender differences in language learning.

Research Studies related to Gender Differences and Topic Familiarity

Females usually perform better than males on language learning. However, it was found in some studies that male students scored better when they read topics that they

were familiar with (Brantmeier, 2003; Bügel & Buunk, 1996; Sturm, 2003; Tanthanis, 2002).

Another study by Bügel and Buunk (1996) indicated that gender differences were an important indicator on reading comprehension. The purpose of their study was to investigate whether English text comprehension is affected by gender differences when text topic is concerned. The study specifically aimed to examine whether males scored better when they were asked to read male-related topics and whether females scored better when they were asked to read female-related topics. The participants were 2,980 secondary students of intermediate English, in the Netherlands, who were asked to read five male-related topics, six female-related topics, and one neutral topic with different text lengths. In the first hour of the assessment, they were asked to rate their prior knowledge and answer a questionnaire on their interests. Then they were asked to read all the texts and answer questions on the topics. The result of the study revealed that text topics and prior knowledge affected sex differences. Females scored significantly higher than males did on female-related topics such as midwives, a sad story, marriage dilemma, and style. On the other hand, males scored higher when they read male-related topics about a laser thermometer, volcanoes, motorcycles, cars, and football players.

In another study conducted by Tanthanis (2002), a comparison of English reading comprehension and gender differences was investigated with 99 male and 102 female first-year students studying at Thammasat University in Bangkok who were asked to take a reading comprehension test. The male-related topics were sports, computer, and technology, and the female-related topics were related to language and communication, nature and environment, and health. Then 17 male and 13 female participants were interviewed in order to know their information on English reading comprehension related to gender differences. The results of the study revealed that gender differences were

significantly correlated to reading comprehension. The male students earned higher scores on male-related topics than female did. Conversely, female students earned higher scores than male did when they read female-related topics.

In addition to a study on gender differences and topic familiarity, Brantmeier (2003) examined the effects of gender and violence-oriented reading passages on second language reading comprehension. Seventy-eight students (29 men and 49 women) at intermediate level in the Spanish language course of a large, Midwestern university in the USA participated in this study. They were asked to read two passages (one of a male-related topic and one of a female-related topic) and to answer a recall and multiple-choice test to assess their comprehension, followed by a topic familiarity questionnaire. The results of the study showed significant differences between male and female readers and second language reading comprehension on the recall and multiple-choice test. The male readers scored higher on the recall and multiple-choice test with the topic familiar to them than females did. Similarly, female readers scored higher on the test related to their familiar topic.

In another research, Sturm (2003) investigated if gender had an effect on children's reading preferences by collecting data from participants who were using the library at the State Library of North Carolina. These participants were asked to complete a questionnaire to indicate their favorite reading passages. It was found that males were interested in male-related topics, such as transportation, sports, and war, whereas females were interested in female-related topics, such as literature, animals, mystery fiction, romance fiction, biography, and career.

However, some studies showed no significant differences between gender and topic familiarity. Brantmeier (2004), for example, conducted a study to investigate the topic familiarity and reading comprehension of male and female second-language readers.

The participants were 68 students (19 men and 49 women) studying in the Spanish advanced grammar and composition course at a private Midwestern university in the USA. They were asked to read two passages and answer a retell comprehension and multiple-choice test, followed by a questionnaire on topic familiarity. No significant differences were found between males and females, but there were significant differences in mean scores in the multiple-choice test between those groups. It was found that the females could write more details on the passage than the males.

Similarly, Yazdanpanah (2007) conducted a study investigating the effects of background knowledge and reading comprehension on male and female performance. The 187 participants (59 females and 128 males) were students of intermediate English at the School of Foreign Language at Eastern Mediterranean University in North Cyprus. They were asked to read three reading comprehension passages with 25 questions in the final examination. Two passages had male-related topics (the latest technology for designing houses and space travel) and the other one was a neutral topic (how to make changes in life). From the topics they read, it could be inferred that this study was gender-biased favoring males. As an assessment, the participants completed two different tests on different days. The first test was to measure the participants' listening and writing abilities. The second test examined vocabulary, grammar, and reading. Only reading tests were used in this study. The results revealed no significant differences between males and females.

In conclusion, correlations exist between gender differences and topic familiarity; however, some of the studies contradict this. Therefore, gender differences is important to English instructors whether they should provide English reading materials related to their students' gender and ones they are familiar with, in order to support the development of their students' English learning abilities.

CHAPTER III

RESEARCH METHODOLOGY

Method

The purpose of this study was to investigate the relationships between topic familiarity, gender differences, vocabulary, and English reading comprehension of students at Rajabhat Universities in Northeastern Thailand. This chapter describes the research methodology, the process for the selection of the participants, the instrumentation, and the procedures for data collection.

Participants

Selection of the universities.

According to the Rajabhat University Act (2004), Rajabhat Universities were established so as to provide the educational services to the community where Rajabhat Universities were located. Moreover, the curricula in all Rajabhat Universities were not different from the ones of public and private universities in big cities (Commission on Higher Education, 2004). Therefore, studying at Rajabhat Universities could serve the needs of university students in rural communities.

Additionally, according to the Commission on Higher Education (2004), Thailand counts 41 Rajabhat Universities: 13 in the centre of the country, 8 in the North, 13 in the northeastern part, 2 in the East, and 5 in the South. It can be noted that there are as many of these universities in the Northeast as in the center. However, the researcher selected as participating universities the ones located in the Northeast because 80% of the population in this area is formed of farmers who earn low wages and is consequently the poorest in Thailand. This implies that young people in the Northeast have fewer opportunities to pursue their education to university. In turn, this reflects upon the economic development

of the country because a great number of people do not have the higher education necessary to promote the economic growth of Thailand (Education for Development Foundation, 2004). In addition, when compared to other public and private universities in the region, the student population in Rajabhat Universities in the northeastern area is as important. From the above-mentioned reasons, it could be considered that the Rajabhat University students in the northeastern part of Thailand can serve as adequate representatives of universities throughout Thailand.

Also, according to the review of the Board of Investment (2005), investment in the northeastern provinces of Thailand increased for the last few years when the Industrial Estate was established in the region. It was also expected that the investment by the export companies might increase by 50% over the next five years. As a result, students who have high language proficiency, especially graduated students who fluently read English texts, are required because they are able to deal with English documents in the companies. Therefore, the university students with high level of English reading proficiency are presently the most important need of various companies and factories.

For this reason, the researcher selected the students of the Rajabhat Universities in the northeastern of Thailand to participate in this study, and the relationships of their ability related with vocabulary, their gender differences, and their comprehension in English reading texts were analyzed. The results of this study are expected to be beneficial in supporting and developing the language proficiency of students in the northeastern area of Thailand.

Thus, the researcher randomly selected 50% of the 13 Rajabhat Universities and these seven Rajabhat Universities participated in this study. All of these universities granted permission for the researcher to conduct the study with their students, and they are: (a) Rajabhat Maha Sarakham University, (b) Ubon Ratchathani Rajabhat University,

(c) Roi-Et Rajabhat University, (d) Chaiyaphum Rajabhat University, (e) Buriram Rajabhat University, (f) Surindra Rajabhat University, and (g) Loei Rajabhat University.

Selection of the participants.

The participants were selected from third-year English major students in the Faculty of Humanities and Social Sciences in the second semester of the academic year 2006 at the selected universities. Third-year students were selected as the sample group because they had the necessary reading skills for the study test. First-year students were not selected because according to Rajabhat University's curriculum they have to attend the fundamental courses as well as basic reading course. The second-year students have been taken reading courses, for example, Reading I and Reading II, and Reading Analysis. Fourth-year students must have trained themselves for more experience while most of the curriculum involves selective courses rather than compulsory courses. For these reasons, the third-year students were considered more suitable for the study.

To investigate the influence of gender differences on the participants' reading ability, the researcher tried to balance the number of male and female participants. After having had a look at the number of male and female students enrolled at each university, more females than males were found. Therefore, all males enrolled in the English program at each university in the academic year 2006 were asked to participate in the study. Then, 10 females enrolled in the English program at each university were randomly selected as participants. Consequently, females and males students from the selected universities counted 70 and 57 participants respectively, for a total of 127 participants.

Instrumentation

Pilot study.

Instrument: Questionnaire on Topic Familiarity

The topic familiarity questionnaire in the pilot study aimed to obtain the participants' familiarity to the topics in order to choose the topics for the test. To develop the test, the researcher studied the English curriculum of Rajabhat University and the reading-course description. Then a review was made of the literature related to gender differences and reading comprehension. According to a study conducted by Sturm (2003), males are interested in transportation, sports, and war. Moreover, Jackson, Fleury, Girvin, and Gerard (1995) indicated that topics that females are most interested in are cooking, cosmetics, and romance. Based on the findings of these two previous studies, a questionnaire was, therefore, developed to investigate if females were interested in reading female-related topics and if males were interested in reading male-related topics.

The participants in the pilot study were composed of third year-English major students at Nakornratchasima Rajabhat University and Rajabhat Mahasarakham University, who were divided into two groups: (a) 23 female participants and (b) 17 male participants, for a total of 40 students. They were asked to fill in their gender and rate their familiarity to the topics by choosing one of four items on a 4-item Likert scale with 4 = strongly familiar, 3 = familiar, 2 = unfamiliar, and 1 = strongly unfamiliar. The topics in the pilot questionnaire were sports, cosmetics, astrology, transportation, beauty and fashion, politics, literature, war, cooking, and computers. The data obtained from the questionnaire on topic familiarity was then analyzed. The responses obtained are presented in Table 1 and 2.

Table 1

Females' Responses Obtained through Topic Familiarity Questionnaire in the Pilot Study

Topics	Female	
	<i>M</i>	<i>S.D.</i>
Cosmetics	3.39	0.87
Cooking	3.22	0.98
Astrology	3.13	0.16
Computers	3.09	1.06
Beauty and fashion	3.00	1.02
Sports	2.87	1.08
Politics	2.87	0.99
Transportation	2.74	0.94
Literature	2.74	0.99
War	2.30	1.04

Table 2

Males' Responses Obtained through Topic Familiarity Questionnaire in the Pilot Study

Topics	Male	
	<i>M</i>	<i>S.D.</i>
Sports	3.65	0.48
Transportation	3.41	0.77
Computers	3.35	0.76
War	3.29	0.96
Cooking	3.18	0.92
Politics	2.94	1.11
Beauty and fashion	2.29	1.02
Astrology	2.18	1.04
Cosmetics	2.12	0.83
Literature	2.12	0.90

The results of this questionnaire showed that the female participants' two most familiar topics were cosmetics ($M = 3.39$, $S.D. = 0.87$) and cooking ($M = 3.22$, $S.D. = 0.98$), whereas the two most familiar topics with the male participants were sports ($M = 3.65$, $S.D. = 0.48$) and transportation ($M = 3.41$, $S.D. = 0.77$).

Instrument: Reading Comprehension Test of Familiar and Unfamiliar Topics

The pilot study aimed to check the level of difficulty, discrimination and reliability of the reading comprehension test of familiar and unfamiliar topics and vocabulary test, which counted respectively 40 and 60 items for a total of 100 items. The data from the topic familiarity questionnaire in the pilot study was used as the criteria for selecting the reading passages to be included in the test. After carefully looking at different expository texts in English magazines, newspapers, and books related to topics that were definite to gender differences, the selected topics were divided into two groups: two male-related topics and two female-related topics. Therefore, the test used in the study was comprised of four expository passages: two male-related topics (sports and transportation) and two female-related topics (cooking and cosmetics). The texts on sports and transportation were selected from the Bangkok Post. The one on cosmetics was found in a magazine, and the passage about cooking was selected from a textbook. A multiple-choice test was developed from the selected passages to assess the participants' reading comprehension. The multiple-choice format was used because each item would have only one correct answer, so there would no bias from the researcher on the scoring system (Oosterhof, 2003).

The purpose of the test was to assess the participants' reading comprehension; therefore, the test items included asking the participants to tell the main idea of the passage, the supporting details, and what could be inferred from the passage. The test

contained four passages, with ten questions each, for a total of 40 items. The participants were told to select only one best answer from the four choices, and there was only one correct answer for each item. KR 20 was used to test the reliability of the test, which stood at .59, and which was considered a low reliability. The difficulty and discrimination of the test items were also analyzed. Some items were then revised to improve the test reliability. The thesis advisor and two native English speakers teaching at secondary and university levels were asked to read the content of the test to evaluate its appropriateness and validity. Their comments served to revise the test, and after the revision, all agreed that the test was valid and appropriate for this study.

The revised test was administered with 40 third-year English major students in the Faculty of Humanities and Social Sciences at Mahasarakham University. In the re-test, the reliability of the test stood at 0.78. After analyzing the difficulty, discrimination and reliability of each item, seven items per passage were selected.

Instrument: Vocabulary Test.

In this study, the target words were selected from terminologies. High-frequency words from the academic word list created by Coxhead (2000) were also selected. Following this, teachers in reading courses were asked to verify these target words and they agreed that the list would likely be familiar to the participants. The multiple-choice vocabulary test developed for the pilot study counted fifteen words for each passage, for a total of 60 items, and was developed on a multiple-choice format with each question comprised of four possible English synonyms (one best correct answer and three distracters) and the statement "I don't know." The participants were asked to mark the one best correct answer. If the participants did not know the word, they were asked to mark "I don't know."

The first pilot study using the vocabulary questionnaire was conducted with 40 third-year students majoring in English at the Faculty of Humanities and Social Sciences at the seven selected Rajabhat Universities. The reliability of the test stood at a low 0.57. The difficulty and discrimination of the test items were also analyzed, after which some of them were revised and administered again in a second pilot study performed with 40 third-year students majoring in English at Mahasarakham University. The reliability of this second testing was 0.80. After analyzing the difficulty, discrimination and reliability of each item, eight words were selected for each passage for the main study.

The Main Study

Instrument: Reading Comprehension Test of Familiar and Unfamiliar

Topics

The reading comprehension test of familiar and unfamiliar topics was used in the main study to assess the reading comprehension of 127 third-year students majoring in English at the Faculty of Humanities and Social Sciences chosen from the seven selected Rajabhat Universities. These participants were divided into two groups: a first group of 70 female participants and a second group of 57 male participants. The selected topics were divided into male-related topics (sports and transportation) and female-related topics (cooking and cosmetics) in accordance with topic familiarity questionnaire in the pilot study. Therefore, the test used in the main study was comprised of four expository passages: cooking, cosmetics, sports, and transportation, with seven reading comprehension questions for each passage. Every question contained one correct answer and three distracters, and the participants were asked to choose the best correct answer from the four choices.

Instrument: Vocabulary Test

In the main study, the vocabulary test aimed at assessing the reading vocabulary of 127 third-year English major students at the Faculty of Humanities and Social Sciences in the seven target universities, and who were divided into two groups of 70 female participants and 57 male participants. This vocabulary test was developed on a multiple-choice format. Each passage counted 8 target words, for a total of 32 items. Every one of these items offered a choice of four possible English synonyms to the target word, with one correct answer, three distracters, and the statement “I don’t know.” During the test, the participants were asked to mark the most suitable synonym. If the participants did not know the word, they were asked to mark “I don’t know.”

Instrument: Questionnaire on Topic Familiarity

In the main study, a questionnaire was developed to obtain information regarding the familiarity of the participants with the topics of the test. This questionnaire was made of two parts: the participants’ personal information and their familiarity with cooking, cosmetics, sports, and transportation, which second part consisted of a four-choice Likert scale with 4 = strongly familiar, 3 = familiar, 2 = unfamiliar, and 1 = strongly unfamiliar. Topics of questionnaire in the main study were sports, transportation, cooking, and cosmetics. The participants were asked to rate their familiarity with the topics according to their degree of familiarity with them immediately after they completed the reading comprehension test of familiar and unfamiliar topics and vocabulary test. The thesis advisor and two native speakers of English teaching at the secondary and university levels were asked to evaluate the appropriateness of the content of the questionnaire. All agreed that it was appropriate for this study.

Data Collection Procedures

Data collection.

The data of the present study was obtained from the reading comprehension test of familiar and unfamiliar topics, vocabulary test, and topic familiarity questionnaire. The data collection procedures began in the second semester of the academic year 2006 after the President of each selected university was asked for permission to conduct the study. Once the permission was granted, the researcher collected the data between December 3, 2006, and January 10, 2007. The participants at the target universities, who were willing to participate in the study, were asked to take the reading comprehension test of familiar and unfamiliar topics and the vocabulary test (for a total of 60 items) in two hours. In the reading comprehension test of familiar and unfamiliar topics, only one correct answer was to be chosen. In the vocabulary test, the participants were allowed to look back to the passages to guess the meaning of the target words and choose one best answer. However, if they did not know the correct answer, they have to mark "I don't know." Following this, the participants were asked to answer the questionnaire on topic familiarity in order to assess their familiarity with the topics treated in the passages of the test.

Data analysis.

The responses on the questionnaire on topic familiarity were analyzed using descriptive statistics. The positive relationship on the reading comprehension test of familiar and unfamiliar topics and vocabulary test was analyzed using a correlation coefficient. A paired-samples *t-test* was used to calculate whether a difference existed between the mean score the participants earned on the topic that was familiar to them and the mean score on the topic that was not familiar to them. To analyze the difference between the mean scores the female participants earned on female-related topics and the

mean scores the male participants earned on male-related topics, an independent-samples *t* test was used. An alpha level of .05 was established to indicate whether the relationships were statistically significant for all statistical tests.

Summary

The present study investigated the relationships between topic familiarity, gender differences, vocabulary, and English reading comprehension of third-year English major students in the Faculty of Humanities and Social Sciences at seven Rajabhat Universities in the northeastern area of Thailand. The research instruments were a test on reading comprehension of familiar and unfamiliar topics, a vocabulary test, and a questionnaire on topic familiarity. The test on reading comprehension counted 28 questions and the vocabulary test counted 32 questions on target words found in the test. The researcher developed the tests and native speakers of English were asked to proofread them. The tests were then piloted and analyzed, following which the three instruments were distributed to the participants of the main study. Finally, to analyze the data thus collected, a correlation coefficient, a paired-samples *t* test and an independent-samples *t* test were used.

CHAPTER IV

FINDINGS

This chapter presents the results of the data analysis in narrative and tabular forms. This study counted 127 participants: 70 females and 57 males, all of them third-year students majoring in English in the Faculty of Humanities and Social Sciences at Rajabhat universities in the northeastern part of Thailand. Descriptive statistics, a correlation coefficient, and a *t* test were used to analyze the data. The presentation begins with the responses obtained from the questionnaire on topic familiarity followed by the following hypotheses:

1. A positive relationship exists between the mean score the participants earn on the reading comprehension test of familiar and unfamiliar topics and on the vocabulary test.
2. On the reading comprehension test of familiar and unfamiliar topics, the participants will earn a higher mean score on the topics that are familiar to them than on the topics that are not familiar to them, regardless of gender.
3. On the reading comprehension test of familiar and unfamiliar topics, the mean score of the female participants will be higher than the mean score of the male participants on female-related topics.
4. On the reading comprehension test of familiar and unfamiliar topics, the mean score of the male participants will be higher than the mean score of the female participants on male-related topics.

Topic Familiarity Questionnaire

To test Research Hypotheses One to Four, it is necessary to obtain the information about the topic familiarity and unfamiliarity of the participants in the main study on the reading comprehension test of familiar and unfamiliar topics. Therefore, after completing the reading comprehension test of familiar and unfamiliar topics and the vocabulary test, the participants were asked to rate their familiarity with the topics on the test by choosing one of four items on a Likert scale (4 = strongly familiar, 3 = familiar, 2 = unfamiliar, and 1 = strongly unfamiliar) on the topic familiarity questionnaire. The results obtained from the questionnaire indicated that the third-year English major students participating in this study were more familiar with the topics on sports ($M = 3.09$, $S.D. = 0.78$) and cooking ($M = 3.03$, $S.D. = 0.65$) on the test. Conversely, they were less familiar with the topics on transportation ($M = 2.76$, $S.D. = 0.72$) and cosmetics ($M = 2.65$, $S.D. = 0.77$). The data related to the participants' familiarity with the test topics are presented in Table 3.

Table 3

Responses Obtained from the Topic Familiarity Questionnaire in the Main Study

More familiar				Less familiar			
Sports ($N=127$)		Cooking ($N=127$)		Transportation ($N=127$)		Cosmetics ($N=127$)	
<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>
3.09	0.78	3.03	0.65	2.76	0.72	2.65	0.77

In addition, it was interesting to find that the male students said that they were familiar with sports ($M = 3.26$, $S.D. = 0.81$) and transportation ($M = 2.96$, $S.D. = 0.65$), and the female students also said that they were familiar with sports ($M = 2.96$, $S.D. =$

0.73), which was defined as a male-related topic. Tables 4 and 5 present the topics familiar to the male and female participants.

Table 4

Males' Responses Obtained from the Topic Familiarity Questionnaire in the Main Study

More familiar				Less familiar			
Sports (n=57)		Transportation (n=57)		Cooking (n=57)		Cosmetics (n=57)	
<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>
3.26	0.81	2.96	0.65	2.91	0.70	2.42	0.80

Table 5

Females' Responses Obtained from the Topic Familiarity Questionnaire in the Main Study

More familiar				Less familiar			
Cooking (n=70)		Sports (n=70)		Cosmetics (n=70)		Transportation (n=70)	
<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>
3.13	0.61	2.96	0.73	2.84	0.69	2.59	0.73

Research Hypothesis One

A positive relationship exists between the mean score the participants earn on the reading comprehension test of familiar and unfamiliar topics and on the vocabulary test.

Results

The results of the present study indicated that there was a low significant positive correlation between the mean score the participants earned on the reading comprehension

test of familiar topics and on the vocabulary test ($r(125) = .37$, and $p = .00$). In addition, with respect to the reading comprehension test of unfamiliar topics and the vocabulary test, it was found that the scores that the participants earned on the unfamiliar topic test and the scores they earned on the vocabulary test was slightly correlated ($r(125) = .12$, $p = .07$), but not significant.

In conclusion, the correlation analyzed from the data revealed that topic familiarity was a good predictor for vocabulary knowledge. The results of the present study supported Research Hypothesis One. The correlation coefficient between the reading comprehension test of familiar and unfamiliar topics and the vocabulary test are presented in Table 6.

Table 6

Correlation Coefficients Between Reading Comprehension Test of Familiar and Unfamiliar Topics and Vocabulary Test

Reading Comprehension Test	Vocabulary Test		
	<i>N</i>	<i>r</i>	<i>p</i>
Test on Familiar Topic		.37*	.00
Test on Unfamiliar Topic	127	.12	.07

$p < .05^*$

Research Hypothesis Two

On the reading comprehension test of familiar and unfamiliar topics, the participants will earn a higher mean score on the topics that are familiar to them than on the topics that are not familiar to them, regardless of gender.

Results

A paired-samples *t* test was conducted to see if the students who participated in this study earned higher mean scores on the topics that were familiar to them than on topics that were not familiar to them. It was found that the mean score they earned on the unfamiliar topic test ($M = 6.70$, $S.D. = 2.50$) was significantly higher than the mean scores earned on the familiar topic test ($M = 5.42$, $S.D. = 1.82$), $t(125) = 5.27$, $p = .00$ (see Table 7). Consequently, the results did not support Research Hypothesis Two.

Table 7

*Mean Scores, Standard Deviations, and *t* Values of Familiar and Unfamiliar Topics*

	<i>N</i>	<i>M</i>	<i>S.D.</i>	<i>t</i>	<i>p</i>
Unfamiliar topics	127	6.70	2.50	5.27	.00*
Familiar topics	127	5.42	1.82		

$p < .05^*$

Research Hypothesis Three

On the reading comprehension test of familiar and unfamiliar topics, the mean score of the female participants will be higher than the mean score of the male participants, on female-related topics.

Results

An independent-samples *t* test was conducted to see if the female students who participated in this study earned higher mean scores on female-related topics than male students did. The results indicated that the mean scores of female participants ($M = 6.86$, $S.D. = 2.30$) was slightly higher than the mean scores of male participants ($M = 6.60$, $S.D.$

= 2.01) on female-related topics, but it was found from the statistical analysis of the independent-samples *t* test that the scores between female and male participants on female-related topics were not significantly different $t(125) = 0.67, p = .50$. Therefore, the results of the study did not support Research Hypothesis Three. Table 8 presents a *t*-test comparison of females and males participants on female-related topics.

Table 8

T-Test Comparison of Females and Males Participants on Female-Related Topics

($N = 127$)

	<i>n</i>	<i>M</i>	<i>S.D.</i>	<i>t</i>	<i>p</i>
Females	70	6.86	2.30	0.67	.50
Males	57	6.60	2.01		

$p < .05^*$

Research Hypothesis Four

On the reading comprehension test of familiar and unfamiliar topics, the mean score of the male participants will be higher than the mean score of the female participants, on male-related topics.

Results

An independent-samples *t* test was conducted to see if the male participants earned higher mean scores on male-related topics than female participants did. It was found that the mean scores of the female participants ($M = 5.64, S.D. = 2.04$) was slightly higher than the mean scores of the male participants ($M = 5.56, S.D. = 1.93$) on male-related topics, but it was found from the statistical analysis of the independent-samples *t* test that the scores between female and male participants on male-related topics were not significantly

different $t(125) = 0.23, p = .82$. The results of the study did not support Research Hypothesis Four. Table 9 shows a t -test comparison of female and male participants on male-related topics.

Table 9

T-Test Comparison of Female and Male Participants on Male-Related Topics (N = 127)

	<i>n</i>	<i>M</i>	<i>S.D.</i>	<i>t</i>	<i>p</i>
Females	70	5.64	2.04	0.23	.82
Males	57	5.56	1.93		

$p < .05^*$

Summary

The results obtained from the topic familiarity questionnaire showed that the participants were more familiar with sports and cooking. Conversely, they were less familiar with transportation and cosmetics. The results of the present study showed that there was a positive relationship between the mean score the participants earned on the reading comprehension test of familiar and unfamiliar topics and on the vocabulary test. The participants had better understanding of vocabulary when they read more familiar topics than less familiar topics.

Regardless of gender differences, the participants' mean scores obtained on the unfamiliar topic tests were significantly higher than the mean scores obtained on the familiar topic tests. The female participants earned higher mean scores than the male participants on both female- and male-related topics.

CHAPTER V

CONCLUSION AND DISCUSSION

This study aimed to investigate the relationships between topic familiarity, vocabulary, and reading comprehension. It also sought to find differences in the English reading ability of male and female students assigned to read topics that were partial to their gender. The participants of the study were composed of 127 third-year English major students (70 females, 57 males) enrolled in the second semester of the academic year 2006 in the Faculty of Humanities and Social Sciences at seven Rajabhat Universities in the northeastern area of Thailand. The data were obtained from a topic familiarity questionnaire, a reading comprehension test of familiar and unfamiliar topics, and a vocabulary test, all developed by the researcher for the purpose of this study. In the present chapter, these data are discussed according to the four research hypotheses, and recommendations for further studies are given at the end of the chapter.

Discussion

Research Hypothesis One

Hypothesis One: A positive relationship exists between the mean score the participants earn on the reading comprehension test of familiar and unfamiliar topics and on the vocabulary test.

Hypothesis One: Results

The result of this study revealed that there was a low positive correlation between the scores the participants earned on the reading comprehension test of familiar and unfamiliar topics and the scores they earned on the vocabulary test. Although the correlation was not high, the results supported Research Hypothesis One.

Hypothesis One: Discussion

The purpose of the present study was to investigate the relationship between the participants' topic familiarity to the test on reading comprehension of familiar and unfamiliar topics and their vocabulary. From the results, it can be seen that topic familiarity increased their understanding of the vocabulary in context. This means that topic familiarity was a good predictor for the participants' vocabulary knowledge.

These results are consistent with the ones from a study conducted by Pulido (2004), which point to the fact that topic familiarity affects vocabulary knowledge in second- or foreign-language readers. According to Pulido (2004), the participants increased their vocabulary when reading narrative passages they were familiar with. The results of the present study suggest that to increase language learners' vocabulary, the textbooks for language classrooms should be selected based on the familiarity they have with the topics in the reading texts. This would allow learners to use their background knowledge to enhance their understanding.

Added to this, and according to Rott (1999), the participants in his study who encountered the same words frequently gained more vocabulary knowledge than the ones who did not encounter these words during reading. It is likely that high-frequency words and terminology may strengthen the vocabulary knowledge of language learners. The results of the present study revealed that the participants gain more knowledge of words when they read familiar topics which contained high-frequency words and terminology. Therefore, it is suggested by ESL/EFL educators that language instructors select reading passages that contain terminology and high-frequency words for their English classroom to help their learners gain vocabulary.

Discussion

Research Hypothesis Two

Hypothesis Two: On the reading comprehension test of familiar and unfamiliar topics, the participants will earn a higher mean score on the topics that are familiar to them than on the topics that are not familiar to them, regardless of gender

Hypothesis Two: Results

The participants were asked to take a reading comprehension test of familiar and unfamiliar topics to determine if they could earn higher scores on reading passages with familiar topics than on reading passages with unfamiliar topics. The results of the test revealed that they earned significantly higher mean scores on the topics that were not familiar to them than on the topics that were familiar to them. The results did not support Research Hypothesis Two.

Hypothesis Two: Discussion

The results of this present study were not consistent with the results found in previous studies that topic familiarity may affect L2 learners' reading comprehension (Bügel & Buunk, 1996; Lee, 2007; Leeser, 2007; Pulido, 2003; Urquhart & Weir, 1998). A possible explanation for this discrepancy may be that the organization of information and text types caused problems to the participants when they took the test in this study. They would have had better understanding if the texts had been well organized, less complex, and with short sentences (Aebersold & Field, 1997; Roe, Stoodt, & Burns, 1998). In the present study, sentences on cosmetics and transportation, which were unfamiliar topics, were short and simple; therefore, it was easier for the readers to understand the meaning of each sentence. Moreover, the main idea of these two topics was given at the beginning of their respective passage and followed by particular details. Each paragraph was short and contained only one or two sentences; therefore, the readers were able to follow the writer's writing style. On the other hand, though the sentences on cooking and sports were also short, they were more complex; thus, the readers might have faced difficulties when reading. The participants may have preferred to read the well organized, simple, and uncomplicated passages of unfamiliar topic, and this preference could have affected their scores on the test. In order to achieve success in the reading comprehension class, it is, therefore, suggested that the teachers consider sentence length, text complexity, and text organization when they select the reading materials for the second- or foreign-language learners.

Discussion

Research Hypotheses Three and Four

The discussion for research hypotheses three and four are combined as they assess the differences between males and females on the reading comprehension test of familiar and unfamiliar topics when reading gender-related topics.

Hypothesis Three: On the reading comprehension test of familiar and unfamiliar topics, the mean score of the female participants will be higher than the mean score of the male participants, on female-related topics.

Hypothesis Four: On the reading comprehension test of familiar and unfamiliar topics, the mean score of the male participants will be higher than the mean score of the female participants, on male-related topics.

Hypotheses Three and Four: Results

The participants were asked to take a reading test of familiar and unfamiliar topics consisting of passages with male- and female-related topics. It was found that females scored slightly higher than males on both male- and female-related topics, but it was found from the statistical analysis of the independent-samples *t* test that the scores between female and male participants on both male- and female-related topics were not significant.

Hypotheses Three and Four: Discussion

The overall results of the study indicated that English reading comprehension was not significantly different by text topics of cooking, cosmetics, transportation, and sports when both the female and male participants read the texts that were familiar to them. However, the scores female participants earned on the test were slightly higher than male students earned on both female- and male-related topics. These results were consistent with the previous studies that found that females were more adept at language learning

than males (Green & Oxford, 1995; Gu, 2002; Sunderland, 2000; Zhenhui, 2005). They support the cognitive theory on gender differences in language learning. According to this theory, the left brain is used to help learners develop the language learning process (Holland, 2001). Females, in general, make better use of the left brain to develop this process than males; therefore, this left-brain development allows females to perform better in language learning than males do (Fewings, 2007). It is, therefore, suggested that in the language classroom, the reading passages for males be selected carefully to help them succeed in reading comprehension.

Recommendations for Further Studies

Recommendations for further studies are as follows:

1. In the present study, the participants were English major students. In further studies, topic familiarity that might affect Thai students studying in other fields such as engineering, science, and medicine should be investigated.
2. In the present study, expository passages were used to assess reading comprehension, vocabulary, and gender differences. In further studies, other text types, such as narration, argumentation, and cause-and-effect reasoning, should be included in the test to determine the reading comprehension test scores, the vocabulary score, and the differences between genders on a variety of texts.
3. In further studies, other factors, such as age and levels of English proficiency that might affect foreign language reading comprehension should be investigated. This information may help instructors be more careful when selecting materials for their language learners.
4. In further studies, topic familiarity in other language skills (speaking, listening, and writing) should be investigated. The information obtained may help

instructors assign tasks that are appropriate to students to help them improve the four communication skills.

Summary of the Study

The results of the study revealed information about the students' ability on reading comprehension and vocabulary knowledge. The readers' topic familiarity plays significant roles on reading comprehension and vocabulary development. Thus, instructors should create their reading activities with materials that are useful for the students. Similarly, materials which help students enhance their reading abilities should be included in the classroom. Gender differences in language learning should also be considered to enhance the students' reading ability. It was found that females performed better than males on the reading comprehension test, so males should be provided more practice on the reading tasks to help them achieve the goal of the reading classroom.

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APPENDIX

APPENDIX A
Questionnaire of Topic Familiarity in the Pilot Study

Questionnaire of Topic Familiarity

You have been asked to participate in a study “Effects of Topic Familiarity and Gender Differences on English Reading Comprehension Related to Vocabulary Gain and Retention of Rajabhat University Students in the Northeastern Thailand”. In order to better interpret the results of the study, it will be useful to know about your background on topic familiarity. The following four topics are intended to help gathering that information. The information you provide will be used only for the purposes of this study and no information about individuals will be divulged to anyone. Your attention in providing the needed information is greatly appreciated.

Sincerely,

Natthicha Chansri

ID Number: _____

Name of the University: _____

Gender: Female

 Male

Description: This questionnaire aims to evaluate your familiarity with four different topics that might be found in an expository passages, by rating them on a scale of four items: strongly familiar, familiar, unfamiliar, and strongly unfamiliar.

The Questionnaire of Topic Familiarity

Directions: To rate your familiarity with each topic; mark an **X** in the appropriate box

Topics	Strongly Familiar	Familiar	Unfamiliar	Strongly Unfamiliar
1. Sports				
2. Cosmetics				
3. Astrology				
4. Transportation				
5. Beauty and fashion				
6. Politics				
7. Literature				
8. War				
9. Cooking				
10. Computers				

APPENDIX B

Reading Comprehension Test of Familiar and Unfamiliar Topics

Reading Comprehension Test

Directions: For questions 1-40, you are to choose the one best answer, A, B, C, or D, to each question. Then, on your answer sheet, find the number of the question and mark an X that corresponds to the letter of the answer you have chosen.

Passage 1: Cosmetic

The beauty industry's latest pin-up isn't some nubile young thing with impossibly dewy skin but a 63-year-old man, Dr. Andrew Weil, a leading authority on integrated medicine in the US and a holistic practitioner who treats his patients using a combination of Eastern philosophies and Western technology. Weil
5 thoroughly deserves his poster-boy status: the health advice **dispensed** on his website, Drweil.com, is followed by millions of Americans and he was recently included in *Time* magazine's "100 most influential people" list.

Weil promotes some alternative beliefs, specifically the health-giving potential of certain mushrooms used in traditional Chinese medicine and Russian
10 folk medicine. His favorite fungi include Chaga, which has been used in Russia since the sixteenth century; Reishi, **renowned** in the East for **enhancing** longevity; Cordyceps, a vitality booster; and the Elm Oyster mushroom, which helps the immune system and has anti-irritant **properties**. Each of these fungi feature in his latest project, a small range of skin creams and nutritional supplements produced
15 in collaboration with Origins. Dr Andrew Weil for Origins Mega-Mushroom Face Serum, £40, and Face Cream, £45, will be sold here from the end of May (the supplements will not be available in the UK for the time being).

YSL was the first to harness the skin-renewing properties of the Reishi mushroom, in its Temps Majeur skincare line. In nature, this mushroom, once used
20 exclusively by the emperors of ancient China, is capable of **regenerating** itself indefinitely, earning it the **reputation** as the fungus of eternal youth.

Recognizing the potential of the Kombucha mushroom – believed to promote the division of collagen cells, responsible for the skin's resilience and tautness – Dr Laurent Miralles, a Botox and facial fillers expert, has included **it** in his Global
25 Beauty Anti Ageing Radiance Cream, £100, and Mask, £50, at Harvey Nichols.

And Carita includes a Japanese mushroom extract in its new La Crème Parfaite, £165, a super-luxe, mega-moisturizing body cream with **firming** properties and particles of 24-carat gold that make the skin shimmer.

With the beauty world tapping into the trend for alternative **therapies** and
30 consumers' **preference** for natural ingredients in products, it's no surprise that these "magic" mushrooms are the new cream of the crop.

1. What is the main theme of this passage?
 - A. Various uses of mushrooms.
 - B. The history of mushroom as medicine.
 - C. The importance of mushrooms in cosmetic products.
 - D. People's attitude toward the use of mushrooms in cosmetics.

2. What would be the best title for this passage?
 - A. The art of cosmetics.
 - B. Magical mushrooms.
 - C. The origin of mushrooms.
 - D. Mushrooms and its ingredient.

3. To which of the following is the word “**dispensed**” in line 5 closest in meaning?
 - A. Accessed.
 - B. Presented.
 - C. Resolve.
 - D. Searched.

4. What does the word “**it**” in line 24 refer to?
 - A. Botox.
 - B. Collagen cells.
 - C. Kombucha mushroom.
 - D. Anti Ageing Radiance Cream.

5. Where would this passage most likely be found?
 - A. In a leaflet.
 - B. On a poster.
 - C. In a medical textbook.
 - D. In a beauty magazine.

6. According to the passage, why does Dr. Weil use mushrooms in skincare cosmetic?
 - A. Mushrooms can produce collagen cells.
 - B. Mushrooms provide good benefit for health.
 - C. Mushrooms do not have anti ageing benefits.
 - D. Mushrooms were used as medicine in the Chinese empire.

7. What could be inferred from the passage?
 - A. Reishi mushrooms are primarily used in cosmetics by YSL.
 - B. Dr. Weil is one of the 100 most influential people because he has created his website.
 - C. Mushroom is gaining in popularity as an important natural ingredient used in natural beauty therapies.
 - D. Dr. Weil uses Chaga, Reishi, Coryceps, Elm Oyster mushroom and Kombucha fungi in his product.

Passage 2: Transportation

BMW is currently working flat out on perhaps the most **controversial** new car ever to wear the blue propeller badge – a 4x4 with **coupé** styling.

The underpinnings of the vehicle – to be called the X6 – will be closely based on those of the new X5, which will arrive next year.

5 But the X6 will appear far more car-like than the X5, combining the ride height of a 4x4 with a lower roofline to give the impression of a coupé.

The body will share much of its appearance with the new 3-series coupé, which has been designed to look significantly different to the regular saloon; the X6 gets its own front- and **rear**-end treatment, including different lights and a new grille.

10 The X6 will have a more pronounced grille than the 3-series, and a rear hatch similar to the new Z4 Coupé's.

And at 4.8m long it will be large – comparable in size to a 6-series. Don't expect that size to mean it will offer a huge amount of room inside, though: the X6 will only seat four.

15 Underneath the body will sit a version of the X5's 4x4 system; necessary, according to BMW's head of development Burkhard Goschel, if the X6 is to sell in America.

In addition to a front-rear power **split**, the X6 will also send its power from side to side, meaning that during cornering more power will be sent to the outer set of wheels to improve **grip** and **agility**.

This system has been developed to reconcile the X6's high centre of gravity (it has 200mm of ground clearance) with the required handling agility.

20 The X6 will also get a version of BMW's double-clutch box, the fast-shifting **transmission system pioneered** by VW's DSG. It will first appear in the new M3 in 25 2007.

Engines at launch will be the 265horse power and 283horse power 3.0-liter straight-six petrol and diesels, with a 4.4 V8 and a less powerful diesel a few months later. Expect prices to start at over 3.5 million baht in the UK.

8. Which of the following would be the best title for the passage?
- The BMW X5 arrives next year.
 - The BMW X5: a brand new look.
 - The BMW X6 and its powerful engine.
 - The new BMW X6 series to be launched.
9. What does the phrase "**This system**" in line 22 refer to?
- The body system.
 - The system beneath the X6.
 - The power and stability control system
 - The fast-shifting transmission system.

10. Which of the following upcoming events at BMW is mentioned in the passage?
- A. The launch of the new M3.
 - B. The launch of the new BMW X6.
 - C. The new X5 will be sold in Thailand.
 - D. The new 3-series coupé will be sold in Thailand.
11. Which of the following sentences best describes the body of the BMW X6?
- A. The X6 is larger than the 6-series.
 - B. It includes original front- and rear-end modification.
 - C. The size of the X6 is the same as those of the 6-series.
 - D. The rear hatch of the X6 is similar to the 3-series and the new Z4 coupé's.
12. According to the passage, which of the following is necessary for the X6 to be sold in America?
- A. The body of the X5's 4x4 will be similar to the X6's.
 - B. The system beneath the X6 will be a version of the X5's 4x4.
 - C. The system of the X5's 4x4 will be adapted from the system of the X6's.
 - D. The system of the under body of X6 will be different from the body of the X5's 4x4.
13. Which of the following about the expected price of the new X6 in the UK is indicated in the passage?
- A. Up to 3.5 million baht.
 - B. At least 3.5 million baht.
 - C. Lower than 3.5 million baht.
 - D. Higher than 3.5 million baht.
14. What is the author's main purpose?
- A. To increase a series of cars from BMW.
 - B. To promote the upcoming series of BMW.
 - C. To compare the BMW X6 and other series of BMW.
 - D. To describe the appearance and engine of the BMW X5.

Passage 3: Cooking

Today most people have fireplaces in their homes as an amenity rather than a necessity. Once, however the fireplace was at the very center of home life, being used not only for warmth but also for cooking.

- 5 Cooking over fireplace may sound simple, but in fact it requires a great deal more time and effort than using a stove. Dry kindling is used to start the fire, and green wood is cut and brought in to burn since seasoned wood burns too quickly and **gives off** less heat. For cooking, there must be a hot bed of coals – a process that takes a full hour for a new fire to produce. Then, as the coals die down, more wood is added slowly to maintain the temperature.

10 Many fireplaces had a fixed, horizontal iron bar built in, running from side to
side about three feet above the fireplace floor. **Others** had a bar that was hinged to
the side wall of the fireplace so it could be swung in and out. On these bars, pots
and kettles which had a small handle (“**bale**”) would be hung with an “S” shaped
hook. Pots which had a small bale on either side were hung with a pair of tongs
15 that hooked into the bales and then into the “S” hook.

People used these pots suspended over the fire for heating soups and stews,
boiling meat and vegetables, and heating large quantities of water. If the fire got
too hot, or if something only needed to be kept warm, the pot could be slid along
the bar to the side, or swung partly out of the fireplace.

20 For frying, coals were raked out onto the **hearth** and the frying pan set
directly on them. When boiling a small amount of water or making coffee, people
would set the kettle on a few coals right up against the fire. An even quicker
method was to place the kettle right on top of the burning wood.

Meat was **broiled** simply by holding it over a bed of hot coals on the end of a
25 long sturdy fork with a wooden handle. Popcorn was popped (“parched”) by
putting the shelled kernels in a covered metal box that had small holes punched in
it. The box was attached to a long wooden handle and shaken directly over the fire.

Foods such as potatoes, corn, onions, and nuts could be roasted by burying
them in hot ashes for insulation and then placing live coals on top of the **ashes**.
30 Ash cakes were baked by wrapping the dough on cloth, placing them in a cleaned
out corner of the fireplace, and covering them with ashes and coals. They were
supposed to have a delicious flavor when baked this way, but it was difficult to
control the heat and keep the bread clean.

Fresh fruits and vegetables were often dried by the fire for several days to
35 **preserve** them. The food would be placed on the hearth away from the direct heat,
or strung and **suspended** from the mantle.

During the winter, fires were kept going all day. At night, ashes were **heaped**
over the coals to keep them hot until morning. A fire would start up again “just
like y’poured kerosene oil on it” when fresh wood was added. In the warmer
40 months, the fire would be started up only when it was time to cook, and ashes
would be raked over the coals to save them when no fire was needed.

15. What is the main theme of the passage?
- Cooking over a fireplace.
 - Maintaining a fire in a fireplace.
 - Preserving food with a fireplace.
 - The importance of a fireplace nowadays.
16. What does the word “**Others**” in line 11 refer to?
- Bars.
 - Kettles.
 - Fireplaces.
 - Fireplace floors.

17. Which of the following was a way to maintain the temperature of the fire?
- A. Placing a coal on a fire.
 - B. Raking ashes over the coal.
 - C. Adding more wood when the coals died down.
 - D. Putting ashes on the coal when the coal was burning down.
18. Which of the following was the quickest way to boil water?
- A. Covering the kettle with a few coals.
 - B. Swinging the kettle away from the fire.
 - C. Shaking the pot against the burning wood.
 - D. Putting the pot right on top of the burning wood.
19. According to the passage, which of the following is TRUE about cooking on a fireplace?
- A. Cooking on a fireplace was a good deal simpler than cooking on a stove.
 - B. One could only heat pots or kettles in a fireplace, and frying or boiling was impossible.
 - C. Seasoned wood was used in the fireplace because green wood would not give off enough heat.
 - D. A lot of cooking was done with pots hanging over the fire from a fixed horizontal iron bar.
20. According to the passage, what was the advantage of baking cake over the fireplace?
- A. The cake was clean.
 - B. It was not hard to keep suitable temperature.
 - C. It was not difficult to add coal and ash.
 - D. The cake was supposed to have a delicious flavor.
21. What can be inferred from this passage?
- A. In the winter, it was difficult to start a new fire again each morning.
 - B. To save time, people often used coals right from the fireplace to start the fire.
 - C. In the old days the fireplace was in a room that served as a combination living room and kitchen.
 - D. Accidents involving burns from boiling water were common when people had to cook with fireplaces.

Passage 4: Sport

Brazil and France had better learn soon that no one wins World Cups just by showing up.

The two nations have won the last three championships between them. But the **trophy** will be going somewhere else unless Brazil's **defenders** stop handing easy chances to their **opponents** and the French remember how to score.

While Brazil **beat** Australia 2-0 in Munich on Sunday to reach the last 16, the French handed South Korea a late equalizer. After two **draws**, they are sweating over whether they will reach the second **round**.

Defending champions Brazil were careless at the back, almost allowing the Socceroos to equalize.

With forwards Ronaldo, Ronaldinho, Adriano, Kaka and Robinho, it is easy to ask why a sound defense is necessary but Brazil tried playing without one and it nearly cost them the game.

While the Brazilians have some of the most eye-catching forwards around, they have not reached the level they know they need to win the trophy for the sixth time, meaning the defense cannot afford to make mistakes that would have been punished by better teams than Australia.

For example, after 59 minutes goalkeeper Dida, of AC Milan, decided to rush off his line to deal with a high ball his defenders should have cleared. It dropped at the feet of Harry Kewell who had only been on the field for a few seconds but he **lobbed** his shot over an empty goal.

And four minutes from the end, with Brazil still ahead 1-0, Dida again left his line to reach a through ball.

Aussie **striker** Mark Viduka beat both the goalkeeper and the daydreaming Gilberto Silva, only to see his lob just clear the bar.

The stronger teams will know this Brazilian team, which boasted strength throughout, has defensive weaknesses. Samba soccer needs solid support.

Coach Carlos Alberto Parreira has to fix these problems before facing Italy, the Czech Republic or Ghana in the next round.

Parreira skirted the team's problems by saying the most important thing was to reach the second round. Maybe he knows better performances are near but even the Brazilian fans appear worried.

Over in Leipzig, Thierry Henry scored the French team's first World Cup goal since a 3-0 victory over Brazil in the 1998 final. But Les Bleus contrived to give South Korea a 1-1 draw to follow their inept 0-0 draw with Switzerland.

Raymond Domenech's players have no one to blame but themselves. Although Patrick Vieira's header appeared to cross the line before being cleared, the French too often tried to usher the ball into the net instead of being decisive.

Henry missed three chances against the Swiss and squandered two against the Koreans simply because he did not go for goal sooner or with more power. The Korean equalizer after 81 minutes by Manchester United's Park Ji-sung seemed a deserved punishment.

45 When Zinedine Zidane was **substituted**, he threw down his captain's armband and barely acknowledged the coach. Zidane knew he would miss the final group game against Togo because of suspension and, it will make a sad career end.

If his French team-mates want to give him another game, they had better realize this is a World Cup, not a goal of the month contest.

22. What is the main theme of the passage?
- A. The strongest team deserves the World Cup trophy.
 - B. A good football player must perform well and be energetic.
 - C. Brazil and France will be beaten if they try hard during the game.
 - D. Brazil and France must improve their game before reaching the final of the world cup.
23. In line 7, what does the word "**draws**" in line 7 refer to?
- A. Defenses.
 - B. Penalties.
 - C. Equalizers.
 - D. Substitutes.
24. In which of the following paragraphs is the major problem of Brazil and France mentioned?
- A. Paragraph 2.
 - B. Paragraph 3.
 - C. Paragraph 12.
 - D. Paragraph 13.
25. According to the passage, what did the Brazil's goalkeeper do?
- A. Fought with Australia's striker.
 - B. He did not kick the ball to Harry Kewell.
 - C. Decided to come over to intercept a high ball.
 - D. Decided to hit the ball in order to score a goal.
26. What is the author's main purpose in this passage?
- A. To promote Brazil and France teams.
 - B. To agree with Brazil and France's style of playing.
 - C. To criticize the major problem of Brazil and France.
 - D. To compliment Brazil and France on their performance.
27. What can be inferred from France's performance in the World Cup?
- A. French fans are happy with France's performance.
 - B. The team has decided to improve their performance.
 - C. The scores with Korea and Switzerland were a deserved punishment
 - D. Brazil had to be careful of their striker and defenders otherwise the team may lose to a stronger team.

28. In the last paragraph, which of the following does the author imply about Zinedine Zidane?
- A. That Zidane and his French football players are the worst players.
 - B. That it will be his last game if he does not considered for his playing style.
 - C. That he and his team friends should understand that playing for the World Cup is not for them.
 - D. That it will be his last game unless his team mates improve their play and make it through to the final.

APPENDIX C

Vocabulary Test

Vocabulary Test

Directions: According to the passage, for questions 41-100, you are to choose a definition for the word provided in each item from the choices given (A, B, C, or D) matching for an appropriate definition. If you do not know the realistic answer, choose E "I don't know". Then, on your answer sheet, find the number of the question and mark an X that corresponds to the letter of the answer you have chosen.

Passage 1: Cosmetic

1. **renowned**

A. famous	B. grown
C. well done	D. well organized
E. I don't know.	

2. **to enhance**

A. to enforce	B. to execute
C. to impose	D. to increase
E. I don't know.	

3. **property**

A. basic substance	B. essential attribute
C. great assets	D. main instrument
E. I don't know.	

4. **to regenerate**

A. to reevaluate	B. to refine
C. to renew	D. to reproduce
E. I don't know.	

5. **reputation**

A. obstacle	B. popularity
C. position	D. respect
E. I don't know.	

6. **firm**

A. delicate	B. fragile
C. moderate	D. strong
E. I don't know.	

7. **therapy**

A. discipline	B. instruction
C. performance	D. remedy
E. I don't know.	

8. **preference**
 A. distribution
 B. favorite
 C. idea
 D. management
 E. I don't know.

Passage 2: Transportation

9. **controversial**
 A. arguable
 B. possible
 C. remarkable
 D. suitable
 E. I don't know.
10. **coupé**
 A. a large road car used for carrying goods
 B. a large car with a lot of seats that you pay to travel on
 C. a car with two side doors and a back that slopes downward
 D. a car whose driver you pay to take you to a particular place
 E. I don't know.
11. **rear**
 A. back
 B. front
 C. high
 D. middle
 E. I don't know.
12. **split**
 A. assembly
 B. expansion
 C. reduction
 D. separation
 E. I don't know.
13. **grip**
 A. control
 B. drive
 C. drop
 D. start
 E. I don't know.
14. **agility**
 A. easy motion
 B. extreme quality
 C. high pressure
 D. strong resistance
 E. I don't know.
15. **transmission system**
 A. control system
 B. cornering system
 C. gear system
 D. transformation system
 E. I don't know.

16. **to pioneer**
 A. to evolve
 C. to invent
 D. I don't know.
- B. to improve
 D. to notice

Passage 3: Cooking

17. **to give off**
 A. to announce
 C. to discharge
 E. I don't know.
- B. to collapse
 D. to eliminate
18. **bale**
 A. bar
 C. hook
 E. I don't know.
- B. handle
 D. pot
19. **hearth**
 A. burning coal
 C. cooking room
 E. I don't know.
- B. chimney piece
 D. fireplace area
20. **to broil**
 A. to boil
 C. to roast
 E. I don't know.
- B. to grill
 D. to toast
21. **ash**
 A. grey powder left after a fire
 C. pieces of wood to start a fire
 E. I don't know.
- B. liquid substance to start a fire
 D. sticky soil left after a fire
22. **to preserve**
 A. to consume food
 C. to produce food
 E. I don't know.
- B. to develop food
 D. to store food
23. **to suspend**
 A. to fall
 C. to move
 E. I don't know.
- B. to hang
 D. to push
24. **to heap**
 A. to break
 C. to join
 E. I don't know.
- B. to empty
 D. to pile

Passage 4: Sport

25. **trophy**
A. a medal for winners
B. a cup given as a prize
C. a certificate for competitors
D. money given as an award
E. I don't know.
26. **defender**
A. back
B. forward
C. midfielder
D. winger
E. I don't know.
27. **opponent**
A. applicant
B. colleague
C. enemy
D. stranger
E. I don't know.
28. **to beat**
A. to cheat
B. to defeat
C. to hold
D. to raise
E. I don't know.
29. **round**
A. duration
B. length
C. span
D. turn
E. I don't know.
30. **to lob**
A. to catch
B. to kick
C. to rush
D. to score
E. I don't know.
31. **striker**
A. attacker
B. center
C. fullback
D. wing back
E. I don't know.
32. **to substitute**
A. to emphasize
B. to postpone
C. to replace
D. to suspect
E. I don't know.

APPENDIX D

Questionnaire of Topic Familiarity in the Main Study

Questionnaire of Topic Familiarity

You have been asked to participate in a study “Effects of Topic Familiarity and Gender Differences on English Reading Comprehension Related to Vocabulary Gain and Retention of Rajabhat University Students in the Northeastern Thailand”. In order to better interpret the results of the study, it will be useful to know about your background on topic familiarity. The following four topics are intended to help gathering that information. The information you provide will be used only for the purposes of this study and no information about individuals will be divulged to anyone. Your attention in providing the needed information is greatly appreciated.

Sincerely,

Natthicha Chansri

ID Number: _____

Name of the University: _____

Gender: Female

 Male

Description: This questionnaire aims to evaluate your familiarity with four different topics that might be found in an expository passages, by rating them on a scale of four items: strongly familiar, familiar, unfamiliar, and strongly unfamiliar.

The Questionnaire of Topic Familiarity

Directions: To rate your familiarity with each topic; mark an **X** in the appropriate box.

Topics	Strongly Familiar	Familiar	Unfamiliar	Strongly Unfamiliar
1. Cooking				
2. Cosmetic				
3. Sport				
4. Transportation				

VITAE

VITAE

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